THE ROLE OF TELECENTRES IN EMPOWERING RURAL COMMUNITIES IN MALAWI

By

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Table of Contents

List of Tables

List of Figures

List of Abbreviations

DC	District Commissioner
ESCOM	Electricity Supply Corporation of Malawi
FGDs	Focus Group Discussions
MACRA	Malawi Communications Regulatory Authority
ICT	Information and Communication Technology
ICTs	Information and Communications Technologies
ICT4D	Information and Communication Technology for Development
ITU	International Telecommunications Union
TAUN	Telecentre A User Number
TAIDBN	Telecentre A Indirect Beneficiary Number
TBUN	Telecentre B User Number
TBIDBN	Telecentre B Indirect Beneficiary Number
NGO	Non-Governmental Organisation
WSIS	World Summit on Information Society

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Dedication

Ma, NyaZimba, this is for you!

Declaration

I have presented this thesis in line with the requirements of the degree of Doctor of Philosophy. This work is my own work and except where necessary, I have acknowledged the sources. Earlier versions of the work have been presented at IFIP 9.4 Conference and later published in its conference proceedings; and at IST-Africa 2020 Conference and published in its conference proceedings.

Abstract

Telecentres have existed for over three decades to reduce digital exclusion. However, their effectiveness remains debateable. This is mainly because research has focused on who owns and uses telecentres even though focusing on how telecentres empower their communities would make more meaningful contribution. Therefore, this study investigated how telecentres empower communities in Malawi. Specifically, it investigated how empowered telecentre users empower their communities; and the factors that influence users in empowering communities. I employed qualitative approach to collect data from two telecentres in Malawi. I call these Telecentre A and Telecentre B. Both of these telecentres were established by the Malawi Government and were later handed over to the community and entrepreneurs respectively. Specifically, focus groups, non-participant observation and semi-structured interviews were conducted to collect data from telecentres users, indirect beneficiaries, telecentres managers and a government official. In this project, the telecentre manager, users and indirect beneficiaries were players at micro level while the government official was a major player at the macro level. The findings indicate that telecentres empower their users who, in turn, empower others at micro level i.e. empowering individuals such as friends, families and colleagues; and macro level. Users empower individuals by leading to intrapersonal empowerment for others e.g. increasing indirect beneficiaries' psychological skills and cognitive frames and skills; and interactional empowerment e.g. critical awareness; leadership development; and career development and employment opportunities. At macro level, users lead to community organisation; and social empowerment e.g. improving health in the communities. The study further finds that some indirect beneficiaries empower others thereby extending empowerment effects of ICTs further. The findings of the study also indicate that conversion of individual user empowerment to community empowerment is enabled by social cohesion, sense of community, beneficiaries' willingness for help, community participation, users' desire for advancements and community organisations. The way these factors work differ based on the type of community. However, empowerment is hindered by limited availability of resources, people's attitudes, gender issues, structural factors and psychological factors. The study furthers our understanding on effectiveness of telecentres in empowering communities, and consequently, in reducing digital exclusion. The main findings in this thesis point to the significance of going beyond telecentre users when assessing the impact of telecentres. The study makes valuable contribution by suggesting a model for understanding the role of telecentre in empowering rural communities in

developing countries; and linking individual and community empowerment and the factors that mediate between these. The results are essential to the body of knowledge in ICT4D, practitioners, policy makers and Malawi Government.

CHAPTER ONE: INTRODUCTION

1.1. Introduction

We are living in a world where Information and Communications Technologies (ICTs) such as the Internet, computers and mobile phones are essential in people's everyday lives. Among others, ICTs provide opportunity for easy communication (Sane & Traore 2009; Aker & Mbiti 2010); can enhance democracy in which citizens influence their governments and vice versa (Palvia, Baqir & Nemati 2018); and help access information on various aspects of life such as education, agriculture, and health (Selwyn 2004; Chilimo 2008; Mukerji 2010; Goh et al. 2016) thereby fostering socio-economic development. In spite of ICTs being recognised as playing a crucial role in the socio-economic development of several countries, many people especially in developing countries do not have access to ICTs, a development which has eventually created what is being called the digital exclusion. Digital exclusion is the gap between those who have access and ability to use and benefit from ICTs and those who do not (O'Bryant 2003; Rothenberg-Aalami & Pal 2005; Gamage & Halpin 2007; Khan & Ghadially 2010). Such ICTs could include the Internet, computers, mobiles and radio.

The digital exclusion phenomenon is particularly prominent in developing countries due to challenges such as high unemployment, low literacy levels, poor living standards and poor infrastructure (Islam & Tsuji 2011; Morakanyane 2011; Osman & Tanner 2017). For example, as of mid-2020, 59% of the world's population was using Internet. Developed countries such as Qatar, Iceland, Denmark and Norway had highest Internet penetration levels of at least 97% each. On the other hand, developing countries have low internet penetration levels. For example, North Korea reported zero online users and in Somalia only 10% were Internet users (Clement 2020). Previous statistics have also shown that most of the Internet non-users came from developing countries especially in Africa whereby 75% were non-internet users against 21% in Europe (International Telecommunications Union (ITU 2016). Another survey on the use and ownership of ICTs of 32 developing countries by Pew Research Center (2015) indicates that only 38% of people in the surveyed countries own computers. Furthermore, of the 32 surveyed countries, only 11 countries have at least half of their population owning computers; and most developing countries have less than 10% of their population owning computers in countries such as Nigeria, 10%; Tanzania, 9%; Bangladesh, 8%; Kenya, 8%; and Uganda, 3% (Pew Research Center 2015). The same trend applies to ownership of smartphones. For example, only two of the 32 countries have at least

half of the total population owning smartphones while other countries such as Tanzania, Uganda and Pakistan have less than 10% of their total population owning smartphones (Pew Research Center *ibid*).

Within these developing countries, demographic characteristics such as gender, age, and education play roles in the use or ownership of ICTs as males, youth and the highly educated use Internet or own computers and/or smartphones as compared to their counterparts (Salanje 2006; Khan & Ghadially 2010). For example, there exists a double-digit gender digital exclusion on Internet usage in many developing countries. For example, in Africa, the number of women using Internet is 25% lower than that of men; and out of seven people using Internet, only one is a woman in the Least Developed Countries (ITU 2018). Age also affects the use of Internet as users in all developing countries tend to be youths (*ibid*). Further to demographic characteristics, there also exists digital exclusion based on location. Particularly, more people in urban areas have access to ICTs despite that the majority of the population lives in rural areas. For example, in Malawi, more households in urban areas (85.1%) have access to mobile phones as compared to only 42% households in rural areas (Malawi Communications Regulatory Authority (MACRA 2015) yet 83.06% of the country's population lives in rural areas (Index Mundi 2019).

To address this digital exclusion, several governments in developing countries with the aid of international organisations such as the World Bank and ITU have invested in telecentres to increase affordable access to ICTs, particularly, in rural areas. Telecentres are facilities which aim at offering public access to ICTs services such as computers, Internet, printers and photocopiers (Ibrahim & Ainin 2009). Despite telecentres' existence for over two decades, their effectiveness in curbing digital exclusion has been questioned (Madon et al. 2009; Gomez 2014; Faroqi & Siddiquee 2017). The purpose of this study is to understand how individuals empowered by telecentres empower rural communities.

The next section provides a detailed discussion on the background to the problem and discusses the problem statement for this study.

1.2. Background to the Problem and Problem Statement

Much as telecentres are mainly established to reduce digital exclusion; and that stakeholders continue investing in such projects, there are debates in literature on whether telecentres are effective in reducing digital exclusion.

On one hand, proponents of telecentres claim that telecentres can reduce digital exclusion because of the benefits that telecentres provide to users in relation to socio-economic development. For example, my literature review in Chapter 2 shows that telecentres help increase the incomes of various groups (Chilimo 2008; Mukerji 2010; Buhigiro 2012; Venkatesh & Sykes 2013; Ngowi et al. 2015; Chigona et al. 2011; Osman & Tanner 2017); and improve human skills (Soriano 2007; Hallberg et al. 2011; Rajapakse 2012). Telecentres also help to check examinations results (Islam & Tsuji 2011); and facilitate access to information on a wide range of aspects such as agriculture, education and health (Rega et al. 2013). In addition, telecentres are considered to reduce digital exclusion by reaching out to the public (Lesame 2008; Ibrahim & Ainin 2009; Baron & Gomez 2013) and training people on how to use ICTs such as computers (Alampay 2006; Madon et al. 2009; Vannini et al. 2013; Kapondera & Hart 2016).

On the other hand, opponents of telecentres argue that telecentres are not effective in curbing digital exclusion with some arguing that their contribution is minimal (Gomez 2014; Faroqi & Siddiquee 2017). This argument is based on the extent to which telecentres are used and the type of people that use the telecentres. Particularly, telecentres tend to be used by a few people in many communities (Etta & Parvyn-Wamahiu 2003; Kumar & Best 2007; Kayira 2013; Mamba & Isabirye 2015). Opponents also argue that there is low participation of disadvantaged groups across gender, age, education and income levels within telecentres (Kumar & Best 2007; Madon et al. 2009) hence telecentres may widen digital exclusion (Gomez 2014; Mamba & Isabirye 2015; Faroqi & Siddiquee 2017). Hence, some existing evidence suggests that telecentres have had a minimal contribution towards reducing digital exclusion because a few people use telecentres and that mostly, the advantaged are the ones benefiting from the telecentres.

To better understand how telecentres can reduce digital exclusion, one has to consider that digital exclusion is complex and multi-layered, as explained in Chapter 2, which develops the theoretical foundations of the study. Briefly, I argue that the divergent opinions on the effectiveness of telecentres in removing or reducing digital exclusion focuses on the first two layers of digital exclusion, yet the phenomenon has three layers. Particularly, the opponents only focus on i) access and usage patterns divide which is about the groups of people who can afford ICTs, hence also known as economic divide (Attewell 2001; Nielson 2006); and ii) the usability divide which is concerned with skills that facilitate the use of ICTs (Selwyn 2004; Nielson 2006; Shank & Cotten 2014); how often people use ICTs (Attewell 2006) as well as how different groups of people use ICTs (Hargittai 2001). The third layer, the empowerment divide, which is about making full and meaningful use of ICTs (Selwyn 2004), has been given limited attention. The implication of the third layer is that even if people have access to and use ICTs, some of the people may not take full advantage of all the opportunities being offered by ICTs or use ICTs for things that would bring little value. The empowerment layer is also associated with changes brought by or benefits of ICTs. The existing research has focused on the measurable and quantifiable changes such as increasing finances yet empowerment has received limited attention (Reimer 2002; Laziu et al. 2010; Gomez & Pather 2012; Barron & Gomez 2013; Tabassum & Yeo 2015; Tabassum et al. 2017). In addition, some studies, which have attempted to analyse the role of telecentres and other Information and Communication Technology for Development (ICT4D) projects on empowerment have used empowerment and socio-economic development interchangeably (for example, Ullah 2017).

This study examines empowerment as an intangible outcome such as self-esteem, confidence, increased awareness of things and improvement in decision-making skills (Kabeer 1999; Aji et al. 2010). Furthermore, a thorough literature review in Chapter 2 indicates that research on empowerment by some scholars (such as O'Bryant 2003; Alao et al. 2017; Mukherjee 2017; Osman & Tanner 2017) only focuses on some aspects of individual empowerment while little attention has been given to community empowerment. We also lack knowledge on the link between individual empowerment and community empowerment in rural areas due to the use of ICTs such as those offered within telecentres. Particularly, the literature review in Chapter 2 indicates that little effort has been put to understand how individuals empowered by the use of ICT4D projects like telecentres, foster community empowerment.

Therefore, this study suggests that focusing on the way telecentre users empower communities is key to understanding empowerment effects of ICT4D interventions such as telecentres on communities, and, subsequently, the effectiveness of ICTs in curbing or reducing digital exclusion. Empowerment, which is discussed in more details in the next chapter is about being able to do things that one was unable to do previously and increasing the choices that people can have and value in their lives (Kabeer 1999; O'Neil 2002; Aji et al. 2010) which is what telecentres are meant for (Gigler 2004; Aji et al. 2010; Gomez & Pather 2012; Tabassum & Yeo 2015).

1.3. Research Aim and Research Questions

The study aims at understanding how individuals empowered by telecentres may empower communities. In doing so, it proposes a framework that will help us understand how telecentres empower rural communities. The specific objectives of the study are:

- To understand how individuals empowered by telecentres may contribute to community empowerment.
- To understand the factors that enable empowered users to foster community empowerment.

There are two main research questions for this study. The questions have been formulated in relation to the research problem presented in the previous section. The two research questions are:

- How do individuals empowered by telecentres empower communities?
- What are the factors that enable these empowered users to empower their communities?

1.4. Research Methodology

My study focuses on empowerment, which is a concept that different people understand and interpret differently. Therefore, the qualitative interpretive philosophical approach assisted in understanding the subjective experience on how users who get empowered by using telecentres empower rural communities; and helped in understanding the problem based on the way participants experience it. The question was answered through the means of a case

study approach to allow in-depth understanding of how telecentre empowered users empower rural communities in their natural setting. For data collection methods, the study included focus groups with users empowered by the use of telecentres; in-depth interviews with empowered users and their immediate beneficiaries such as their families, friends and colleagues, and interviews with managers of the telecentres and a government official responsible for establishing telecentres in Malawi; and observation on purposively chosen users from each telecentre. I have explained in detail the methodology used in this study in Chapter 4.

The case study research was conducted in Malawi which is one of the developing countries where the digital exclusion is imperative and telecentres are being established to help in curbing the digital exclusion. I have given more details about Malawi in Chapter 4.

1.5. Significance of the Study

I explain the significance of my study based on three dimensions or levels: significance to theory; significance to practice; and significance at country level, i.e. Malawi, where the study was carried out.

In relation to theory, my study makes a valuable contribution as the literature lacks a sound theoretical framework for understanding the effects of ICT4D projects on empowerment at both individual and community levels. My study, as discussed in Chapter 3 and Chapter 8, extends the available theories of understanding empowerment effects of ICT4D projects by focusing on empowerment outcomes at both individual and community levels; and by focusing on the empowerment process because of using telecentres in developing countries. The framework that the study developed has applicability not only in the context of telecentres but also in other ICT4D projects which aim at empowering rural communities. Furthermore, the study makes valuable theoretical contribution by providing insights on the factors that influence users in empowering the community. The study also adds theoretical contribution by showing empowerment flows which is about how empowerment moves from empowered telecentre users to the community; and how indirect beneficiaries get involved in the community empowerment. My study also makes a valuable contribution on sustainability of telecentres. Particularly, the study shows that empowerment of telecentre users is vital for community empowerment and telecentre sustainability because, empowered telecentre users

support the telecentres in various forms that lead to telecentre sustainability. The study also makes a valuable contribution to Social Capital Theory. Specifically, my study shows that Social Capital Theory can be used to understand empowerment as a process as discussed in detail in Chapter 8.

Secondly, in relation to significance to practice, the existing literature on ICTs and digital exclusion has mainly focused on how individual users have been benefiting from ICTs with a particular focus on measurable benefits. My study is significant as it furthers our understanding of how ICTs, specifically telecentres, can benefit indirectly the people who do not access and use ICTs due to, for example, lack of resources and skills. The study is also significant as it furthers the understanding of how people that become empowered by using ICTs such as telecentres can then empower members of their community and, thereby, become means to generate collective empowerment. Consequently, the study contributes to the body of knowledge on the ICT4D.

At country level, Malawi, in which the study was conducted, the study provides insights in terms of strengths and challenges on the role of telecentres in rural community development and reducing digital exclusion. Consequently, this will help the Malawi Government and telecentre operators on how to make improvements so that telecentres have more impact on development. This is timely because the Malawi Government is currently establishing telecentres in every constituency under Connect a Constituency Project (MACRA 2020). A constituency in this case means 'body of voters in a specific area who elect a representative to a legislative body" (Kavanagh 1999:247).

1.6. Scope and Limitations

This study targeted users who have been empowered by telecentres to understand how they empower their communities. To achieve the aim of the study, users' communities in terms of their families, friends, and their workplace were approached to aid in understanding on how they are empowered by users. This study was limited to rural communities in Malawi. On users, the sample does not represent the users who were not empowered since this was beyond the scope of the study.

1.7. Chapter Conclusion and Outline of Thesis

Telecentres in developing countries are established with the core aim of developing marginalised communities as well as eliminating digital exclusion. Despite their existence for over two decades, the question of whether telecentres are effective in curbing digital exclusion remains unresolved. The aim of the study is to understand how telecentres empower rural communities.

Chapter Two discusses literature review by examining what other scholars have written in relation to the topic. The chapter also identifies the gaps in the studies.

Chapter Three examines theories applied in understanding the effects of ICTs on empowerment and proposes the framework that guided in understanding empowerment effects of telecentres on rural communities.

Chapter Four focuses on methodology adopted for the study. It describes the research philosophical approach; the research strategy; case study approach; research context and data collection methods; target groups for the study; ethics and data analysis technique.

Chapter Five presents and summarises analysis of data collected during the fieldwork from Telecentre A.

Chapter Six presents and summarises analysis of data collected during the fieldwork from Telecentre B.

Chapter Seven focuses on a cross-case analysis of the two cases.

Chapter Eight discusses the findings in relation to literature highlighting the similarities and differences with prior literature. The Chapter also highlights the contributions of the study.

Chapter Nine provides a summary of the study. It offers implications of the study towards research in ICT4D and areas for further study and practitioners; study generalizability and limitations; personal reflections and concluding remarks.

CHAPTER TWO: LITERATURE REVIEW

2.1. Introduction

My study falls within the ICT4D field. Particularly, as stated in Chapter 1, it aims at understanding how telecentres empower rural communities. This chapter aims at reviewing literature related to my topic. The literature review helps to examine what other scholars have written; and to identify gaps.

Firstly, the Chapter provides a brief overview of telecentres. It then examines the literature on the debates on the role of telecentres in digital exclusion. Thereafter, the chapter provides an overview of empowerment, the link between ICTs and empowerment, literature on telecentres and empowerment before presenting the research gap and justification for my study.

2.2. Definition and Overview of Telecentres

As stated in Chapter 1, telecentres offer public access to a variety of ICTs that may include telephone, computers, Internet, photocopiers and printers for development objectives (Aji et al. 2010; Brown & Safiulttoque 2016). Some telecentres also offer training in the use of computers and Internet (Alampay 2006; Vannini, et al. 2013); and sometimes access to newspapers, library services and space that communities use for social gathering activities, learning and finding solutions to community problems (Aji et al. 2010; Hansson et al. 2010). Basically, services provided by telecentres vary from one country to another depending on levels of national development (Bailey & Ngwenyama 2013). Therefore, for this study, telecentres will be considered as facilities with ICTs and space for public access within marginalized communities. Since telecentres target the communities in which individual access and affordability is limited (Oestmann & Dymond 2001; Parkison & Lauzon 2008; Aji et al. 2010), telecentres offer services at low costs (Ibrahim & Ainin 2009; Gcora et al. 2015).

The concept of telecentres can be traced to 1980s when the first telecentre which was known as ‘telecogate’ was established in Velmdalen village in Sweden which provided basic telecommunication service (Fuchs 1997; Chilimo 2008) so that the rural areas also enjoy the benefits of ICTs (Etta & Parvyn-Wamahiu 2003). Since then, there have been several

initiatives that support the establishment of telecentres in developing countries. As described in Table 1, some of these initiatives include the Missing Link Report and international organisations such as International Telecommunications Union and World Bank.

Table 1: Global Initiatives and Stakeholders Behind ICT4D

	Initiative/Stakeholder	**Description/Role**
Selected global Initiatives	The Missing Link Report	○ The first major report to recognize the role of ICTs in development (Chilimo 2008). ○ It states that telecommunication did not have to be taken as a luxury as it played a crucial role in developmental aspects such as agriculture, health, commerce and education but teleceommunications was missing link in development (ITU 1984). ○ Its focus was narrow as it was limited to telephones (Chilimo 2008).
	World Summit on Information Society (WSIS)	○ During 2003 WSIS organized by ITU, ICTs were recognized as essential tools for creating an information society. WSIS recognized that if an information society is to be created, then digital divide has to be bridged by increasing access to ICTs within developing countries (Alampay 2006).
Roles of stakeholders	Governments	Governments create enabling policies which: ○ Allow and recognise relevance of investments in ICTs. ○ Ensure that the Information and Communication Technology (ICT) interventions are in line with the objectives in the policies. ○ Governments invest in ICTs such as establishing telecentres (Hallberg et al. 2011); and Internet cafes (Mascarenhas 2010).
	International Organisations (e.g. World Bank, ITU and UNESCO)	○ Offer monetary support for the ICT4D in developing countries. For example, the first telecentre in Africa was funded by ITU (Mtega & Malekani 2009; MACRA 2015); and the World Bank provided free mobile phones and monthly credit to midwives in Indonesia to facilitate, accelerate and improve rural health services using mobile phones (Chib et al. 2008).
	Private and non-governmental organisations	○ Provide funding for and collaborate with governments in implementing ICT4D projects. e.g. as of 2007, non-government and private organizations had invested $840 billion in developing countries (Benjamin 2000; Gomez & Pather 2012)

To date, there exist different kinds of telecentres. As described in Table 2, these telecentres range from micro telecentres which only provide access to limited ICTs such as pay phones and receipt printer (Jensen & Esterhuyisen 2001) to full-functional also known as multipurpose telecentres which offer wide range of ICTs and sometimes including libraries (Jensen & Esterhuyisen 2001; Kapondera & Hart 2016).

Table 2: Types of Telecentres

Type of telecentre	Description and examples
Micro telecentres	○ Provide access to limited ICTs which include phones with a web browser and card reader that users pay for to access; and receipt printer. ○ Mainly housed in shops where they operate as part of already an existing business (Jensen & Esterhuyisen 2001). ○ Examples include pay phones in Burkina Faso (Alampay 2006).
Mini telecentres	○ Offer access to telephones as main service and also equipped with photocopier or fax or printer (Jensen & Esterhuyisen 2001). ○ Examples include telecentres in Senegal where pay phone was the main service also offered photocopy, fax and Internet services were also being offered (Benjamin 2000).
Basic telecentres	○ Has numerous phone lines and ICTs such as photocopier, a number of computers with Internet access, a printer, scanner (Jensen & Esterhuyisen 2001).
Full-service telecentre	○ Offer a wide range of services including Internet access; color printer, black and white printer, digital and video camera, projector, photocopier, conference rooms, video conferencing room and laminator (Jensen & Esterhuyisen 2001). ○ Could also be viewed as multipurpose telecentres which also offer training on ICTs use (Kapondera & Hart 2016).

All these telecentres are mainly established to reduce digital exclusion thereby develop communities and countries (Aji et al. 2010; Alao et al. 2017). The following section examines literature on the role of telecentres in achieving these objectives i.e. analyses whether and how telecentres can effectively decrease the digital exclusion.

2.3. The Role of Telecentres in Eliminating Digital Exclusion

This section examines literature in relation to the effectiveness of telecentres in eradicating digital exclusion. This literature review is in relation to the debates on the topic as I briefly discussed in Chapter 1.

2.3.1. View One: Telecentres Eliminate Digital Exclusion

As stated in Chapter 1, there are various views as to whether telecentres are effective in eliminating digital exclusion. The first view is based on the arguments of the proponents of ICT4D projects. Proponents argue that telecentres are effective based on their role in fostering socio-economic development. Various studies have been done to understand the effectiveness of telecentres on socio-economic development; and that telecentres are considered essential for socio-economic development due to numerous roles that they play. For example, telecentres help increase farmers' income through provision of agricultural information on buyers of rare varieties (Soriano 2007: Venkatesh & Sykes 2013) and subsidized agricultural inputs (Ngowi et al. 2015). Telecentres also improve economies in the communities through job creation (Chilimo 2008); employing people to work within telecentres; and helping people find jobs through provision of information on job vacancies (Chigona et al. 2011; Kapondera & Hart 2016). In addition, telecentres improve economies through business opportunities by training people on how to start-up businesses (Buhigiro 2012; Rajapakse 2012; Osman & Tanner 2017). Moreover, telecentres reduce transaction cost by bringing ICTs close to communities and offering the services at low cost as compared to alternatives such as cybercafés which are mainly found in urban areas and are profit oriented (Ibrahim & Ainin 2009; Mukerji 2010).

Telecentres also improve human skills through ICT literacy training and access to information which improves knowledge of users (Soriano 2007; Chilimo 2008; Hallberg et al. 2011; Rajapakse 2012) and improve education when used for academic purposes such as completing schoolwork (Rega et al. 2013) and for checking examinations results (Islam & Tsuji 2011). In addition, telecentres facilitate creation of social capital, interpersonal relationships and social bonds (Grunfeld 2011). This is achieved through provision of space for interaction (Soriano 2007), by facilitating communication (Soriano 2007; Parkinson & Lauzon 2008) and networking with family and friends (Girardet 2000; Gamage & Halpin 2007; Chigona et al. 2011).

It follows that telecentres eliminate digital exclusion by offering access to a variety of ICTs and offering universal and shared access. Their ability to stock a variety of ICTs and open to the public in remote areas helps to remove the gap between urban and rural areas (Lesame

2008). Since they are open to the public, everyone in the rural areas can access the ICTs (Ibrahim & Ainin 2009; Baron & Gomez 2013). Telecentres also curb digital exclusion by giving the necessary support in form of training essential in the use of ICTs (Alampay 2006; Madon et al. 2009; Rega et al. 2013; Vannini et al. 2013; Kapondera & Hart 2016). This is particularly important because without ICTs skills even when there is access, the facilities are irrelevant.

2.3.2. View Two: Telecentres Do Not Reduce Digital Exclusion

The second view is concerned with the opponents of telecentres who argue that telecentres have failed to achieve their objectives and expectations of reducing digital exclusion with some arguing that their contribution is minimal (Faroqi & Siddiquee 2017). This argument is based on the extent to which telecentres are used and the types of people that use the telecentres. Particularly, telecentres are only used by a few people in many communities (Kumar & Best 2007; Kayira 2013; Mamba & Isabirye 2015). For example, a study by Etta and Parvyn-Wamahiu (2003) in five countries in Africa: Mali, Mozambique, Senegal, South Africa and Uganda found that only between 10 and 20 people visited telecentres on a daily basis. Similarly, Dossani, Misra and Jhaveri (2005) in India found that in some telecentres, less than five people visited telecentres in a day.

In addition, telecentres are deemed to have failed to reduce digital exclusion because there is low participation of disadvantaged groups within telecentres (Kumar & Best 2007; Madon et al. 2009), which is why some question the role of telecentres in benefitting those negatively affected by the digital exclusion (Mamba & Isabirye 2015; Faroqi & Siddiquee 2017). For example, in some telecentres, access is uneven across gender, age, education, and income levels. In most circumstances, frequent users of telecentres are male, educated youth from high-income backgrounds (Kumar & Best 2007; Chigona et al. 2011; Razka & Amadieric 2011; Rega et al. 2013; Pick et al. 2014). This implies that the ones who use telecentres are already advantaged whereby the disadvantaged such as females, less educated (Tiwari 2008; Vannini et al. 2013; Pick et al. 2014); with low-income levels (Tiwari 2008); and the elderly (Vannini et al. 2013) do not use the telecentres thereby not enjoying the benefits of telecentres. Therefore, instead of removing digital exclusion, telecentres contribute to inequality within the community they serve. Other scholars argue that since advantaged users

are among those that mostly use telecentres, telecentres may even widen digital exclusion (Madon et al. 2009; Gomez 2014; Ullah 2016). Moreover, the advantaged groups who patronise the telecentres sometimes have alternative means to accessing the ICTs such as their homes (Ullah 2016). Furthermore, telecentres are said to reproduce digital divides because people who are illiterate, powerless and poor such as women and girls do not access telecentres. As a result, telecentres may further empower the elites, thus leading to the poor becoming more powerless, marginalised, and disempowered (Ullah 2016; 2017).

Hence, existing evidence suggests that telecentres have had a minimal contribution towards reducing digital exclusion to the fact that a few people use telecentres and that mostly, the already advantaged are the ones benefiting from the telecentres. However, it must be noted that these studies focus on access and usage patterns of telecentres only. To fully understand how telecentres can reduce digital exclusion, one has to consider that digital exclusion is complex and multi-layered, as I explain in the next section.

2.3.3. Digital Exclusion is Multi-layered

Digital exclusion is complex and multi-layered (Attewell 2001; Selwyn 2004; Cotten & Jelenewicz 2006). In other words, it comes in different stages or layers. The first layer of digital exclusion is concerned with access by looking at the groups of people who can own or afford ICTs, and this is also known as economic divide (Nielson 2006). Mostly, the poor and the minority groups such as the blacks as compared to the whites do not have access to ICTs because they cannot afford buying. The main factors leading to this divide are income/poverty and education (Attewell 2001). Therefore, to remove this digital exclusion, proponents of ICTs focus on provision of access to ICTs. Although access is frequently used to refer to making ICTs available, there are factors such as time and costs that mediate access (Selwyn 2004; Chigona et al. 2005), thereby challenging the assumption that reducing digital exclusion only involves provision of access to ICTs (Chigona et al. 2005).

The second layer of digital exclusion is the usability divide, which looks at the skills that enable one to use ICTs. In other words, this is concerned with the use of ICTs because, even when people can afford ICTs and overcome the first layer digital exclusion, ICTs themselves

will be useless if they are not used (Shank & Cotten 2014; Nielson 2006). Some of the factors that contribute to lack of skills include lower literacy levels and age. Usability divide also focuses on how often people use ICTs (Attewell 2006); and as to how users that belong to different groups use and engage with ICTs (Hargittai 2001).

The third layer of digital exclusion is the empowerment divide. This is about making full and meaningful use of ICTs (Selwyn 2004). Thus, even if there were free or low-cost access and people use ICTs, not everyone would fully use them to enjoy the benefits that come with using ICTs (Nielson 2006). Furthermore, this level of digital exclusion could be associated with the outcomes of using ICTs such as the changes that people experience after using ICTs. In addition, this level focuses on the purposes for using ICTs by different groups. The purposes are mediated by socio-economic factors such as education (Selwyn 2004). For example, Attewell (2001) found that children's purposes for using computers at home differed between advantaged and disadvantaged groups. The children from disadvantaged households used computers for non-instrumental purposes like playing games, while those from the affluent families used them for educational purposes due to the encouragement by siblings and parents who are usually educated. Due to this, "computers may exacerbate the educational differences between social classes" (Attewell *ibid*).

To sum up, literature review in this chapter shows that limited attention among researchers on ICT4D as well as telecentres has been paid to the aspect of empowerment and more specifically at community level. The following section discusses the concept of empowerment and examines the few studies that have attempted to examine empowerment in relation to ICT4D in general and telecentres in particular.

2.4. Empowerment and Telecentres

The purpose of this section of literature review is to discuss the link between telecentres and empowerment. The section firstly provides an overview of empowerment by providing its definition and levels of empowerment. This is followed by a discussion of the link between ICTs and empowerment in general and how telecentres empower people. The section further discusses the gaps in the literature around the stated themes.

2.4.1. Definition of Empowerment

Empowerment, which has roots in psychology (Rappaport 2002), is understood differently in different fields such as psychology, sociology, health, management and information systems. As such, there is no uniform definition of empowerment. For example, in psychology, the focus is on psychological attributes such as personality, self-efficacy, esteem and competence (Khan & Ghadially 2010); and in sociology, empowerment is associated with active participation of people in the activities that bring change in their communities (Aji et al. 2010). In health, empowerment is concerned with gaining confidence which may help in gaining power to influencing decisions that affect one's life and quality of life (Petrič & Petrovčič 2014), while in management, empowerment is about enabling subordinates by sharing with them power and control to achieve managerial and organisational effectiveness (Conger & Kanungo 1988). Despite these differences, a commonly accepted definition of empowerment is "any process by which people's control (individual or collective) over their lives is increased" (Somerville 1998:233). It is a multidimensional process through which a person or a group makes choices and is able to transform the choices into the outcomes they desire (Samah & Badsar 2013). Empowerment is linked to capability approach which is about one living the life they want and value and have reason for valuing it, a concept described further in Section 3.2.

Empowerment is the process that enables people who were initially not able to make strategic choices to acquire the ability of making such choices (Kabeer 1999). It is about being in charge of one's life (Karubi 2017; Kanjo et al. 2019). It is fundamental that people understand their social and political environment to gain consciousness about their ability of taking control over their lives (Naraya et al. 2000; Laverack 2006). For example, to participate in electing leaders of one's community, one needs to have information on the selection procedures and requirements. Furthermore, it is about people being capable of performing activities that they thought were impossible.

Empowerment is also associated with the concept of power as it is about a person or group of people moving from a disadvantaged position to an advantaged position which enables them to be in control of their lives and or environment (Mukherjee 2017). Moreover, empowerment is thought to only occur when a person or community takes power (Rappaport

2002; Laverack 2006; Samar & Badsar 2013; Ullah 2017). Therefore, empowerment is also considered as a process of transferring power to others (Susanto 2018) making the concept of power important in understanding empowerment (Ullah 2017). Empowerment is related to power because of two factors: agency and opportunity structure (Ibrahim & Alkire 2007). In this context, agency is the capacity of people being able to act with an aim of making positive changes in their lives in relation to the goals that they value (Sen 1985); while opportunity structure is about the contextual conditions such as policies and norms that either enable or hinder empowerment (Mukherjee 2017). In this thesis, I conceptualise empowerment as the ability to do things that one was unable to do before using and benefiting from telecentres. I also adopt the view that empowerment is about agency which is about making choices and imposing the choice on the world (Abubakar & Dasuki 2018). Thus, when one gets empowered, they have choices that they can utilize based on what they value in their lives.

Empowerment can be both a process and an outcome. Empowerment as a process concerns the means through which people gain control over their lives, critically understand their social and political environments, are able to obtain required resources for making changes in their lives, and, eventually, create changes in their lives and/or environment (Zimmerman 1995; Aji et al. 2010; Vongchavalitkul 2015). It is about opportunities given to people to become empowered (Zimmerman 1995; Vongchavalitkul 2015). Examples of opportunities include opportunities for practicing certain skills, working together with people, and getting involved in problem solving. Furthermore, empowerment as a process involves removing conditions that make people feel less empowered (Conger & Kanungo 1988; Grunfeld 2011).

Empowerment as a process can lead to intended or unintended outcomes (Zimmerman 1995). When it comes to outcomes, empowerment is something that cannot be measured quantitatively but qualitatively understood such as self-esteem and self-confidence (Noruwana et al. 2018). Some of the empowerment outcomes include people's sense of control, self-efficacy, critical awareness and civic participation (Itzhaky & York 2000; Zimmerman 2000; Aji et al. 2010; Petrič & Petrovčič 2014; Alao et al. 2017). For example, empowered individuals mobilize resources and participate in political activities within a community (Zimmerman 1995); and set goals they can ably achieve (Mukherjee 2017). This study understands empowerment as both a process and outcome. As a process, empowerment in this study is considered as the course or ways through which telecentres help people and

communities become in control over their lives and their communities. It is also considered as the enabling and hindering factors to empowerment. As an outcome, empowerment is considered as the empowerment indicators or the actual change that people and/or communities experience as result of telecentres.

2.4.2. Levels of Empowerment

Empowerment occurs at three levels that include individual, organisational and community levels. The study focuses on individual empowerment and community empowerment as the study's aim is to understand how empowered individuals in turn empower their communities. At the individual level, empowerment is a person's ability of feeling strong to make choices in their life (Soares et al. 2015). Empowerment at the individual level is also called psychological empowerment (Peterson & Hughey 2004; Aji et al. 2010; Alao et al. 2017). Therefore, this study uses individual empowerment and psychological empowerment interchangeably.

Community empowerment, which is also known as collective empowerment (Petrič & Petrovčič 2014; Soares et al. 2015), means organised work through participation aimed at gaining power to improve collective living conditions (Laverack 2006; Soares et al. 2015; Vongchavalitkul 2015). Collective empowerment is achieved through a group of people who collectively obtain psychological capacities to change their disadvantaged position (Hur 2006). Collective empowerment is characterised by two aspects: i) an individual realizing that collective action is needed for a change in the community; and ii). an individual believing in the power of interpersonal relationships which can help individuals have more impact (Petrič & Petrovčič 2014). Therefore, collective empowerment cannot be separated from individual empowerment (Samah & Badsar 2013) because collective empowerment is about individuals, certainly empowered coming together for collective action that may have more impact on the community. Community empowerment emphasises the role that community-based organisations play in the empowerment process (Gigler 2004; Uys 2016). It involves people possessing powers working together with the powerless and give the opportunities to become empowered (Laverack 2006). Based on the concept of power, community empowerment entails that people have the strength to "form groups and organizations at the community level and to collectively pursue goals based on a shared vision" (Gigler 2004:16).

Individual empowerment, which has been the focus in many telecentre studies (e.g. Alao et al. 2017; Osman & Tanner 2017), can influence community empowerment (Zimmerman 1995) as described in detail in later sections. For example, those who have high self-esteem and confidence can form groups to take part in changing conditions in their communities and, consequently, empower their communities. In addition, the community may influence individual empowerment. For example, to achieve competence, it also requires one to actively engage in their community and understand their socio-political environment (Zimmerman 1995). This, therefore, implies that in research, one may not understand individual empowerment without considering community environment. Moreover, effective empowerment needs involvement of both individual and collective levels (Soares et al. 2015). The focus of this study will be on how individual empowerment leads to community empowerment. In addition, empowerment at both levels is influenced by a myriad of factors as described in the next section.

2.4.3. ICTs and Empowerment: How ICTs Empower People

There is link between ICTs and empowerment. ICTs such as Internet and computers are considered essential tools for empowerment because they are 'general purpose technologies', which simply means they can be used in a variety of areas (IT for Change 2013). ICTs help empower the previously disempowered. Furthermore, ICTs help in achieving equality between groups on the opposite sides by empowering the ones on negative side (De' 2006; Khan & Ghadially 2010). In a study by Khan and Ghadially (2010) for example, ICT education made women perceive higher feelings of empowerment as compared to men thereby achieving equality. ICTs have also been found to help farmers to be in control of their lives by enabling informed decisions (Ali & Kumar 2011). ICTs such as access to computers connected to Internet and online groups have increased awareness of services and opportunities within communities, and, consequently, improved people's lives (O'Bryant 2003; Petrič & Petrovčič 2014). ICTs such as mobile technologies also help in expanding and strengthening social networks (Smith et al. 2011). At community level, ICTs have been found important for fostering dialogue and mobilizing community participation (Zunguze 2007).

Although this literature shows evidence of empowerment through ICTs, as explained in 2.3.2, ICTs such as telecentres are sometimes said to disempower people and sometimes lead to new divides. The new divides that ICTs may create are linked to politics of technology. For example, Wajcman (2000) argues that technological developments in general may reproduce gender hierarchies instead of gender equality. In agreement, scholars such as Berg and Lie (1195) and Faulkner (2001) argue that technology is gendered as this is primarily designed by men. Similarly, Wajcman (1991) posits that technology is not gender-neutral, whilst other researchers (e..g Winner 1993) argue that technology is political. This is because some technologies do not consider potential social consequences of some technologies; and that some groups' concerns are not addressed as mostly they address the powerful ones already (Winner 1993). Lack of addressing other groups' needs causes the disadvantaged groups to remain powerless. For example, Wajcman (2000) argues that men's monopoly in technology becomes their source of power; and that many women still rely on men due to lack of ICTs skills which, eventually, leads to lack of dependence. However, despite these, ICTs have the potential to empower women (Wajcman 2007).

In ICT4D projects such as telecentres, there is also politics involved when it comes to design and implementation. According to Akpan-Obong (2010), ICTs are designed with the assumption that they will lead to socio-economic benefits, a concept normally referred to as top-down approach. This approach has not been demand-driven as the implementation is mainly about focusing on what donors are interested in and is about maintaining power and funding of the international organisations (Ullah 2016). This view ignores users who are active objects in the use of ICTs. Furthermore, this top-down approach of ICT4D projects such as telecentres benefits the elite. The people in rural areas who are the targets of the ICT4D projects are powerless and simply recipients of imposed ICT4D solutions (Honsberger 2014). Mostly, the beneficiaries of telecentres in rural areas are not aware of what happens in telecentres (Ullah 2016). Involvement of potential users in the design and implementation of telecentres helps in ensuring that they are used because the projects address their needs. This also leads to sustainability of telecentres (Bailur 2007). Therefore, instead of top-down approaches that most ICT4D projects adopt, community participatory approach ought to be adopted in implementing ICT4D projects such as telecentres (Ayoung 2016).

Although existing evidence shows that politics of technology leads to empowerment and disempowerment of some groups withing the communities, the emphasis of this evidence focuses on who uses the ICTs. It is still important to look at the effects of those empowered by the use of ICTs on those who do not use the ICTs or on their communities hence my study which aims at understanding how the empowered users of telecentres in turn empower their communities.

2.4.4. Telecentres and Empowerment: How Telecentres Empower People

As already alluded to in the previous section, ICTs can lead to empowerment in numerous ways. Therefore, telecentres being facilities that provide access to ICTs can lead to empowerment.

Several studies have been conducted to understand how telecentres lead to empowerment at the individual level. These studies have mainly focused on empowerment as an outcome. For example, emails, web browsing and computer education increase perceived control in the sense that people know what is happening in the world and no longer feel isolated (Huyer & Sikoska 2003; Kleine 2010; Grunfeld 2011; Osman & Tanner 2017; Tabassum et al. 2017; Noruwana et al. 2018); and improve social life and better communication (Alao et al. 2017). Furthermore, telecentres bring people from different backgrounds together through computer training which eventually leads to users' positive attitude towards people from various backgrounds. Telecentres also encourage self-development whereby users are able to budget and save money after participating in computer education; and lead to self-belief as their families consider them dependable when they contribute financially after participating in entrepreneurial services (Osman & Tanner 20017). Through computer education, telecentres also help people become innovative by experimenting with new approaches, e.g. financial transactions online, thereby leading to comfort. Telecentres also help users increase self-esteem and confidence such that they are able to express themselves and become mentors; and able to do things on their own (Huyer & Sikoska 2003; Madon 2004; Gigler 2014; Attwood et al. 2013; Osman & Tanner 2017; Abubakar & Dasuki 2018); and leads to sense of pride as they are able to contribute towards discussions (Noruwana et al. 2018). They also help in improving self-efficacy (Tabassum et al. 2017). Telecentres help in education and

employment by enabling people such as women get jobs through searching information on jobs online and through career planning services (Hansson et al. 2010; Chigona et al. 2011).

Moreover, telecentres help people improve their decision-making skills. People using telecentres find best solutions for problems after discussing with colleagues during computer tutorials (Osman & Tanner 2017); and through self-reflection (Alao et al. 2017). By involving community members and putting them in leadership positions within telecentre management committees, telecentres help in increasing leadership competence and skills. Telecentres have also been found to help women become more aware of their rights which has consequently reduced violence against women in some contexts (Grunfeld 2011); and increase awareness of services and opportunities within the communities, consequently, improving people's lives (Osman & Tanner 2017; Noruwana et al. 2018); and increase access to information (Noruwana et al. 2018). Telecentres help in people being aware of the political state in the country (Noruwana et al. 2018). Telecentres also improve civic participation of their users because users eventually become mentors (Osman & Tanner *ibid*). For those working in telecentres in ownership and management capacity, the telecentres help in earning trust and respect (Hansson et al. 2010; Oreglia & Srinivan 2016). Telecentres encourage community members to participate in projects in some contexts (Grunfeld 2011). In addition, telecentres help users to be in touch with government officials thus being involved in political activities although at community level such involvement is limited (Alao et al. 2017). Although these studies show evidence of how ICTs and telecentres empower individuals, evidence of empowerment at community level is limited. The following section reviews literature on ICTs and community empowerment.

2.4.5. ICTs and Community Empowerment

Limited attention has been given to the impact of ICTs at community level. A thorough literature review shows that there are a number of articles whose titles will have ICTs and community development or community empowerment yet their findings are still discussed at individual level (such as Gomez & Baron-Porras 2011; Razak & Amadieric 2011). For example, Gomez and Baron-Porras (2011) found that public access venues including libraries, cybercafés and telecentres helped individuals in terms of learning, relationships, more information and improved transactions. This was at individual level and not necessarily

at community level. Similarly, Razak and Amadieric (2011) study aimed at examining the role of telecentres in empowering communities in Malaysia. However, the paper still focuses at individual level and not community level. Furthermore, the paper discusses the socio-economic benefits such as health and education to individuals and not necessarily empowerment. In other words, the main emphasis in understanding the effects of ICTs has been at individual level. In addition, just as at individual level, the few studies that discuss ICTs and empowerment of communities still focus on socio-economic benefits such as increasing finances of the community (such as Harris 2009) and not necessarily empowerment.

In this thesis, I argue that one of the ways for understanding how ICTs and ICT4D projects empower rural communities is by examining how benefits that derive from telecentres go beyond the individual to the community at large, which is the aim of my study. My thorough review shows that very few studies have attempted to understand how ICTs empower indirect beneficiaries. Closely linked to my study is a study by Oreglia and Srivasan (2016) which focused on women (mobile phone users and telecentre operators) and how they acted as intermediaries in the access and use of ICTs and not only for their personal use. The study found that daughters who were in urban areas taught their mothers on how to use mobile phones; and that through being employed, telecentre operators were able to provide for their families. Although their study looks at benefits of ICTs beyond users, we still lack information on community beyond family boundaries in traditional ICT4D projects; and information on users as Oreglia and Srivasan (2016) focused on telecentre operators. In addition, we lack information on the mechanisms or factors through which empowered individuals in turn empower communities. Hence my study also aims at understanding the factors or mechanisms of empowering rural communities.

2.4.6. Factors Influencing Empowerment

Much as ICTs can lead to empowerment (Maier & Nair-Reichet 2007), there is no direct link between ICTs and empowerment (Buskens & Webb 2009; Hatakka, Anderson & Grunlund 2013; Dasuki et al. 2014; Gigler 2014). What empowers or not is the use of ICTs. However, several factors determine the extent to which people can access and use ICTs for empowerment (Buskens & Webb 2009). For example, some norms in society may restrict

women to participate in some activities such as speaking in public gatherings (World Wide Web Foundation (WWWF 2014; Maier & Naier-Reichert 2007). Therefore, the knowledge of factors that affect empowerment effects of ICTs is important as it helps answering questions of how ICTs can bring about empowerment.

A few studies on the role of ICTs on empowerment have attempted to investigate the factors that affect empowerment. For example, lack of skills and costs have been found to negatively affect the use of mobile phones (Alampay 2006) and empowerment effects of telecentres (Macueve et al. 2009; Keline 2010; 2011). For example, Macueve et al (2009) further found that low-income levels of women inhibited the empowerment of ICTs on women. Dasuki et al. (2014) found that non-involvement of consumers inhibited the effects of participation of stakeholders in the electricity prepaid system, while training on the provision of the prepaid meter services helped empower staff. In another study by Hatakka et al. (2013) on the effects of 1:1 laptop in Sweden found that social factors such as norms and personal factors such as performance influenced choice of students both positively and negatively. For example, high performing students could easily deal with negative effects of using laptops such as lost opportunity to take notes and being addicted to social media which distracted users while low performing and less motivated students had problems; and schools with rules on laptops had fewer problems on distractions (Hatakka et al. 2013).

Similarly, on personal factors, Ali and Kumar (2011) found that although farmers' use of e-choupals (i.e. ICT facilities that provided access to agricultural information) helped the farmers make informed decision on agricultural practices, this depended on education and income levels as there was no much difference between farmer users and non-users of low income and educational levels. Furthermore, a study by Khan and Ghadially (2010) found that gender affected the effects of diploma in computer education studies, and of computer and Internet use as these empowered females and men differently. In the study, females perceived higher confidence, competence, independence, and self-determination while men reported higher on control over their lives. This suggests that gender, income, education levels and norms among others, mediate the empowering effect, which appears that ICTs benefit those that are already advantaged.

Although, these factors have been investigated, scholars have just focused on the factors that affect individual empowerment ignoring those that mediate between individual and community empowerment. Therefore, just as limited studies have been done on how users of traditional ICT4D projects empower their communities so is research on the factors that influence people empower their communities. No study has sought to understand the enablers of users of ICT4D projects in empowering the community hence one of the aims of this study is to understand what influences users in empowering the community. Therefore, one of the interests of this study is to understand factors that help empowered individuals through telecentres to in turn empower communities.

2.5. Research Gap and Justification for the Study

As discussed in Chapter 1 as well as Section 2.3 of this chapter, the debate on whether telecentres can reduce digital exclusion remains largely unresolved because the issue has not been investigated thoroughly. Particularly, the different evidence on the subject indicates how current research fails to view or examine digital exclusion as a phenomenon that is multilayered.

This study's stand is that the opponents to the effectiveness of telecentres in reducing digital exclusion concentrate on the first two layers of digital exclusion phenomena, namely: i) access and usage patterns divide which is about groups of people who are able to afford or own ICTs hence also known as economic divide (Attewell 2001; Nielson 2006); and ii) usability divide which concerns the skills for facilitating the use of ICTs (Selwyn 2004), how often people use ICTs (Attewell 2006), and how users belonging to various groups, such as in terms of age, gender and incomes use and engage with ICTs (Shank & Cotten 2014).

However, a thorough literature review above shows that the third layer of digital exclusion has received limited attention. The third layer, empowerment divide, looks at making full and meaningful use of ICTs. The third layer implies that even if people are accessing and using ICTs, some people would not use and take advantage of all opportunities brought by ICTs. For example, a businessperson may be a member of an online business group but may not participate by either buying or advertising their services through the platform. On meaningful use, one may have access to computers connected to the Internet that may enable them to

access information on various topics such as health, but they may choose to only use the computers for activities of little value to their lives such as playing games. In addition, the empowerment divide layer could also be considered as a layer concerned with changes that people experience because of using ICTs.

The available research has mainly focused on measurable changes or impacts such as how telecentres increase the incomes of people while limited attention has been given to empowerment (Reimer 2002; Laizu et al. 2010; Tabassum & Yeo 2015; Tabassum et al. 2017). Moreover, although empowerment has been used in ICT4D research, some scholars use it interchangeably with socio-economic development (World Bank 2002 as cited by Macueve et al. 2009; Ullah 2017) which can be measured quantitatively, yet empowerment can be understood qualitatively (Laizu et al. 2010; Noruwana et al. 2018). Therefore, this study will view empowerment as an intangible benefit such as confidence and self-esteem.

An in-depth literature review done in previous sections of this chapter shows that when it comes to research on empowerment, only some aspects of individual empowerment have received attention by some scholars in current research (such as O'Bryant 2003; Alao et al. 2017; Osman & Tanner 2017; Mukherjee 2017). These studies, as discussed above, find that ICTs help in increasing confidence, self-esteem, perceived confidence, self-efficacy (Huyer & Sikoska 2003; Madon 2004; Osman & Tanner 2017; Tabassum et al. 2017); increase awareness of resources and rights and improve leadership and decision-making skills (Grunfeld 2011; Osman & Tanner 2017) while community empowerment has received little attention. Particularly, extant literature reveals that there has been inadequate effort to understand how individuals who are empowered by the use of ICTs such as telecentres, foster community empowerment in rural communities. Furthermore, there is lack of knowledge on the link between individual and community empowerment in rural areas because of using ICTs.

My study also extends Oreglia and Srinivasan's (2016) study as the present study focuses not only on the benefits of telecentres on users' families but even their colleagues and communities at large to have a comprehensive understanding of how ICTs empower communities. My study also builds on Tabassum et al. (2017) who studied the intangible impact of Internet usage on both users and non-users. My study extends their study by

focusing on the effects of users' empowerment at community level which goes beyond individual level as described in detail in subsequent chapters. In addition, the available research does not pay attention to the mechanisms and processes through which empowered individuals spill over to the communities, hence my study.

Accordingly, the present study suggests that focusing on the way telecentre users empower communities is key to understanding empowerment effects of ICT4D interventions such as telecentres on communities, and, subsequently, the effectiveness of ICTs in curbing digital exclusion. In this study, I am looking at how individuals empowered by telecentres may empower rural communities; and factors that foster community empowerment. This research aims at proposing a theoretical framework that would be used to understand how individuals empowered by use of telecentres can lead to rural community empowerment. Specifically, initially, the study proposed a framework that guided this research (henceforth referred to as Research Framework). In the next chapter I illustrate the framework.

2.6. Chapter Conclusion

This chapter has reviewed literature related to my topic. It has provided a brief overview of telecentres. It has also examined the literature done on the impact of telecentres on digital exclusion by focusing on the debates on the topic. Thereafter, the chapter provided an overview of empowerment, the link between ICTs and empowerment, literature on studies on telecentres and empowerment before presenting the research gap and justification for my study. The next chapter examines the theoretical perspective adopted in this study.

CHAPTER THREE: THEORETICAL PERSPECTIVE

3.1. Chapter Introduction

This chapter aims at examining and reviewing theories applied in ICT4D in relation to empowerment. It also aims at proposing a theory that will further understanding of the empowerment effects of ICTs on rural communities. The main aim of the research framework is to show the research gap; to show the focus of the study; and to guide the data collection. The Chapter also presents existing theoretical frameworks that have been used in understanding empowerment in relation to ICT4D projects before discussing the research framework.

Empowerment is viewed as a complex concept to measure (Laizu et al. 2010). As such, different theories on empowerment exist. In the field of ICT4D, literature review shows that the foundation for most of the frameworks (including one of the frameworks used to develop the research framework for this study) is based on Sen's Capability Approach hence its review in the next section.

3.2. Sen's Capability Approach and Empowerment Frameworks

The Capability Approach was developed by Amartya Sen in the 1980s (Robeyns 2005). Before its development, many theories evaluated development in terms of income a country or a person possessed. This left out other essential elements of evaluating development. Therefore, the Capability Approach was developed with an aim of evaluating development based on what people can do or be based on what they value which are capabilities and not based on outcomes as it had been previously thought (Alampay 2006; Smith et al. 2011; Hatakka et al. 2013; Dasuki et al. 2014; Uys 2016). The Capability Approach treats well-being [or development] as in the eyes or perspectives of individuals and not based on priori defined measurement (Nkhoma 2017). The principal concept of the approach is freedom of choice that enables a person to live a life that one values and that contributes to their well-being (Madon 2004; Musa 2006; Smith et al. 2011). According to Sen (1990) as cited by Mukherjee (2017:28), "a person's actual freedom is represented by having different choices and his or her ability to choose between different combinations of capabilities." In other words, development exists if people can live the lives they choose to live and the lives

considered important to them. The choices could be personal, economic, health, cultural and political (Kleine 2010; Smith et al. 2011).

Empowerment enables people to gain significant and new capabilities for performing certain activities that people could not previously do (Kabeer 1999; Cornish 2006). Empowerment is considered as expansion of people's choices and something that enables people pursue choices that they value based on existing conditions in their environment (Mukherjee 2017). Furthermore, empowerment helps individuals as well as communities to gain control over issues which they value (Zimmerman 2000). Therefore, some scholars have applied the Capability Approach to understand the role of ICTs in influencing empowerment. In addition, some scholars have used the approach as basis to develop their own frameworks. Figure 1 shows the Capability Approach.

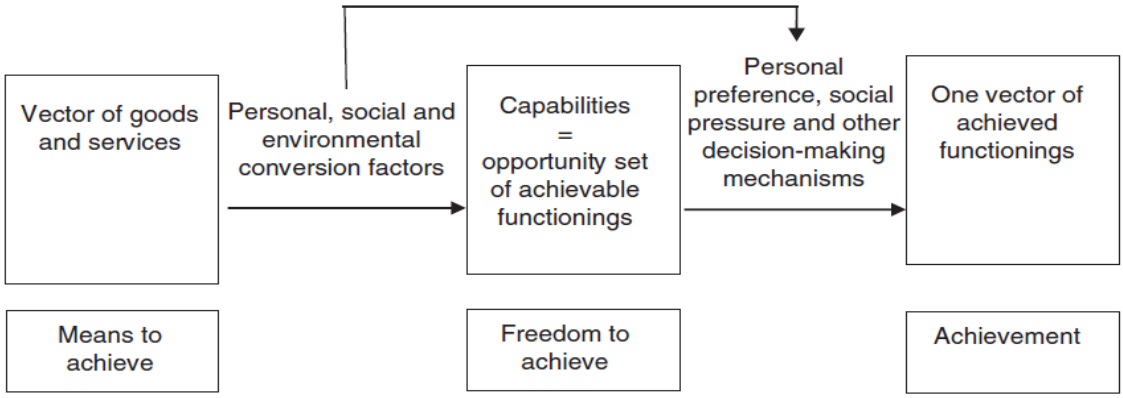

Figure 1 : Sen's Capability Approach (Source: Zheng and Walsham 2008, adapted from Robeyns 2005)

Briefly, using the Capability Approach, a human being is viewed as an agent who can realise their potential by turning commodities or goods and services such as mobile phones into *capabilities*, i.e. things a person thinks is able to achieve (Kleine 2010; Uys 2016) or opportunities that are available to people (Mukherjee 2017). The conversion of commodities into capabilities is enabled or hindered by three conversion factors: i) demographic characteristics such as physical condition, age, gender and literacy; ii) social conversion factors such as social norms and policies; and iii) environmental factors such as poor electricity (Gigler 2004; Robeyns 2005; Laizu et al. 2010; Hatakka et al. 2013). Based on choices that are determined by preferences, social pressure and any other decision making,

the capabilities may be turned into *functionings*, which are considered as achievements or outcomes (Musa 2006; Kleine 2011). This implies that people with the same capabilities or opportunities in life can have different *functioning*s. The functionings are also known as realised capabilities (Mukherjee 2017). Furthermore, choice, which means 'being able to choose' should also be considered as one of the functionings (Stewart 1995). ICT4D researchers need also to understand why particular choices are made and what hinders them from making choices (Hatakka & De 2011). Choice in Figure 1 is represented by personal preferences, social pressure and decision-making mechanisms. Functionings that are determined by choices are doings or beings. They include things that an individual considers valuable to do or be (Gigler 2004; Musa 2006; Kleine 2010; Nkhoma 2017). Functionings are also considered as achievements or outcomes (Dasuki et al. 2014); and sometimes called achieved or realized capabilities (Robeyns 2005). Examples of functionings are being healthy and taking part in community activities. Furthermore, the act of choosing when one has freedom is a functioning (Sen 1999).

Much as the Capability Approach offers a broad way of assessing developmental or empowerment interventions, the approach focuses on individuals as agents (Robenys 2005; Hatakka et al. 2013; Dasuki et al. 2014). This assumes that people act on their own without groups or communities (Zheng & Stahl 2011). Therefore, it does not account for effects of ICTs on community empowerment. In addition, the Capability Approach does not offer the link between individual and community empowerment which is the aim of this study. Moreover, Capability Approach is a meta theory. As such, several scholars in ICT4D have developed different theories to operationalise the Capability Approach. The main ones include Gigler's Alternative Evaluation Framework, Alsop's and Heinsohn's Empowerment Framework and Kleine's Choice Framework. Table 3 briefly describes these frameworks.

Table 3: Models for Understanding Empowerment Based on CA

Name of theory	**Description**
Alsop and Heinsohn (2005) Empowerment Framework	The Alsop and Heinsohn Empowerment Framework suggests that empowered individual makes effective choices and transforms choices into actions (Alsop & Heinsohn 2005). Two factors influence the extent to which people are empowered. These factors include *personal agency* which is the individual's capacity of making personal choice by firstly envisaging options. It is concerned with assets a person owns including financial, material, social, informational, human or psychological assets. The other factor is *opportunity structure* that focuses on the context of the actor (individual) in which choice is made. The

	factor constitutes formal and informal contexts and comprises aspects laws, regulations and norms (Alsop & Heinsohn 2005; Kleine 2011; Kleine et al. 2012). These factors work together to "give rise to degrees of empowerment" (Alsop & Heinsohn 2005:6). People use this component, in navigating opportunity structure component with an aim of achieving 'degrees of empowerment', which, in turn, enables development outcomes (Kleine 2011:121; Kleine et al. 2012:45).
Choice Framework	The Choice Framework operationalises the Capability Approach by combining it with two frameworks: Alsop and Heinsohn Empowerment Framework; and Sustainable Livelihood Framework which offers an analytical way of understanding the lives of the poor by focusing on capitals (social, human, financial, natural and physical assets) that are critical for people's livelihoods (Grunfeld 2007). The Choice Framework suggests that people using the agency (resource portfolio (capitals) and individual characteristics) navigate through structure consisting of informal and formal laws, polices, norms, affordability, availability of ICTs, and skills need to use ICTs (Kleine 2010; 2011). The process of navigating the structure enables people or communities to be aware of choices and make use of them which, in turn, leads to developmental outcomes (Kleine 2010; 2011; Uys 2016).
Alternative Evaluation Framework by Gigler	Based on Capability Approach's core principle of having development interventions focus on what people value, the Alternative Evaluation Framework was developed by conducting consultation workshops with local people in rural areas in Peru with an aim of having the indigenous people define their own priorities. The Framework in essence aims at operationalising the Capability Approach and also incorporates the Sustainable Livelihood Framework (Gigler 2004; 2014). This is described more in a later section.

Of the three theories that come from Capability Approach, only one framework, the Alternative Evaluation Framework is close to the aims of this study. This is because it provides dimensions of community empowerment. Therefore, this framework together with another framework, Zimmerman's framework will be used to develop the framework for this study. These are described in detail the next section before describing the actual research framework.

3.3. Conceptual Foundation

3.3.1. Alternative Evaluation Framework

The Alternative Evaluation Framework was developed by Gigler (2004). Figure 2 presents the framework. Based on the Capability Approach's core principle of ensuring that developmental interventions focus on what people value, the Alternative Evaluation Framework was developed by involving local people in rural areas of Peru to define their own priorities. In addition, the framework is based on Sustainable Livelihoods Framework which explains the lives of the poor by understanding the assets they possess (Kleine 2010;

Grunfeld 2011). The Alternative Evaluation Framework aims at answering "*whether and under which conditions the improved access to information and knowledge facilitated by ICT can enhance the individual and collective capabilities of the poor to achieve the lifestyle they value,"* (Gigler 2004:8).

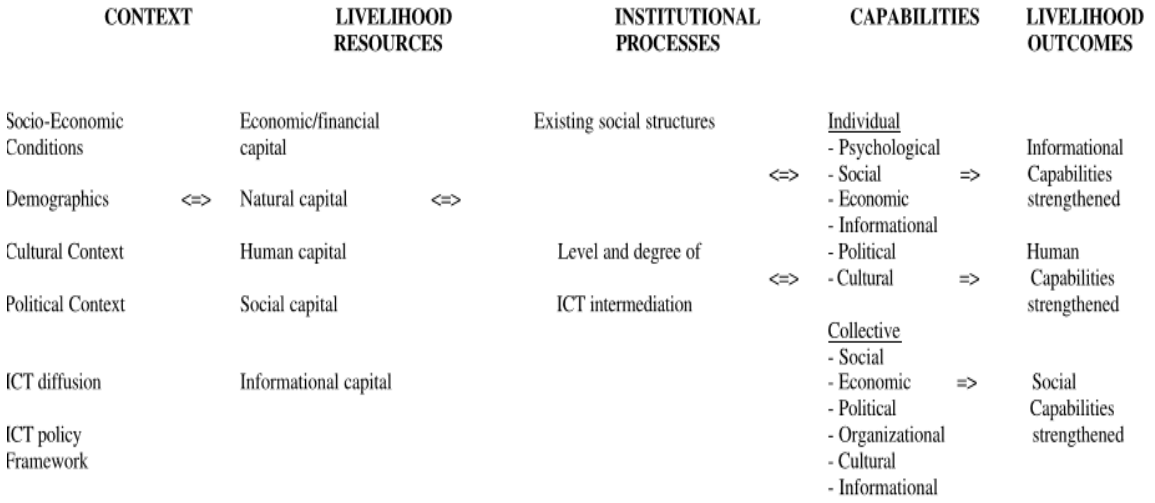

Figure 2: Gigler's Alternative Evaluation Framework (adapted from Gigler 2004:10)

Empowerment in Alternative Evaluation Framework is considered as "capabilities". This is with reference to the principle of capabilities, which are things that a person thinks is able to achieve or opportunities available to people (Sen 1999; Kleine 2011; Uys 2016; Mukherjee 2017); and the Capability Approach focus on what people value (Robeyns 2005). Empowerment is considered a process that helps people gain substantial and new capabilities to perform some specific actions that people could not previously do (Kabeer 1999). Furthermore, empowerment helps individuals and communities gain mastery over issues that are important to them (Zimmerman 2000). The main components of the framework include social context, livelihood resources, institutional processes, capabilities and livelihood outcomes.

The framework suggests that given the resources and combined with favourable contextual conditions, such as ICT policies and norms that affect the access and use of ICTs, individuals can be empowered. The framework further suggests that ICTs can facilitate achievement of community empowerment. The framework gives six dimensions of community

empowerment outcomes which are: informational; organisational; social; economic; political and cultural as described below:

- *Informational*: some indicators of information empowerment in a community are strengthened information systems, improved information flow in the community; and improvement in information exchange with other communities.
- *Organisational*: this is about how things are carried out within a particular community. Indicators of organisational empowerment transparency in the selection of leaders, improved information flow, improvement in the coordination of various organisations existing within the community and increased efficacy in operations of the community.
- *Social*: this is about whether ICTs have played a role in improving access to social services such as health and educational services in the community.
- *Economic*: this is about promotion of economic opportunities such as increased access to markets and enhanced capacity to mobilise resources.
- *Political*: this dimension includes an improvement in participation in political systems and increased transparency in political institutions.
- *Cultural*: indicators under this dimension include strengthened indigenous systems and languages and improvement in the dissemination of communities of culture (Gigler 2004; Gigler 2011).

Since the interest of this study is to understand how empowered individuals lead to community empowerment, these aspects will be borrowed to address lack of community empowerment outcomes in Zimmerman's Psychological Empowerment Framework (described in Section 3.3.2.). In addition, although the Alternative Evaluation Framework recognises that ICT access and use may lead to empowerment outcomes at individual as well as community levels, the framework does not give the link between these two levels of empowerment. In other words, the framework does not outline or explain factors or mechanisms that would enable empowered individuals to empower communities. Therefore, this theory is good for understanding outcomes of empowerment but not necessarily the empowerment process. In the next section, I review Zimmerman's Psychological Empowerment Theory which helps in understanding empowerment at individual level and partly helps in understanding empowerment process. I later review Social Capital Theory, a

theory that can help in understanding the empowerment process before I finally discuss mechanisms for achieving community empowerment.

3.3.2. Zimmerman's Psychological Empowerment Theory

Zimmerman's empowerment theory, the Psychological Empowerment Framework, as shown in Figure 3 helps in understanding psychological or individual empowerment outcomes. It also partly helps in understanding empowerment process. The theory puts psychological or individual empowerment into three dimensions: intrapersonal, interactional and behavioral aspects.

Intrapersonal empowerment is the basic component of individual empowerment. It is about individuals' perception of themselves (Speer 2000; Speer et al. 2001), which, in the end, influences their ability to control their environment and goal achievement (Zimmerman 1995; Aji et al. 2010). Some of the elements include perceived control, self-esteem, self-efficacy and motivation, impact, meaning, positive attitude and competence (Speer et al. 2001; Peterson & Hughey 2004). Table 4 summarizes the definitions of these terms. Intrapersonal empowerment influences individuals to engage in activities that enable them achieve desired outcomes (Zimmerman 1995). For example, only those who believe they are capable of achieving goals (self-efficacy) would really work towards achieving them.

Table 4: Aspects of Intrapersonal Empowerment

Perceived control	Perceived control is about how people react to their improvement of social-economic wellbeing (Osman & Tanner 2017). It is also about people's perception that they can determine their behaviour to influence their environment and achieve desired outcomes (Wallston et al. 1987).
Self-efficacy	This is concerned with peoples' belief in their ability to successfully accomplish a task essential for achieving desired goals (Beas & Salanova 2006; Bandura 1982 as cited by Ohmer 2007; Hassan et al. 2011; Razak et al. 2016).
Competence	Linked to self-efficacy (Spreitzer 1995), competence is one's belief in being able to perform activities given the skills they possess (Gist & Mitchel 1992). In ICT4D Competence is people's understanding and skills of ICTs (Aji et al. 2010).
Self-esteem	Self-esteem is the evaluation component of the self (Hassan, et al. 2011). The higher the self-esteem, the more a person views themselves as important resources (Spreitzer 1995).
Motivation	In relation to telecentres, this involves the reason why people get to use telecentres (Bailey & Ngwenyama 2009).
Meaning	This is the value of work purpose as compared with a person's ideals or stands (Thomas & Velthouse 1990).
Self-	Self-determination is an individual's "sense of choice in initiating and regulating

determination:	actions," (Deci et al. 1989:580). Examples include decision making concerning methods of work to be done.
Impact	The extent to which a person may influence outcomes (Thomas & Velthouse 1990).
Positive attitude	This is about responding positively to situations or people (Osman & Tanner 2017).
Meaningfulness	This is "value of task or purpose, judged in relation to individual's' own ideals" (Thomas & Velthouse 1990:672).

Interactional empowerment is how individuals understand and relate to their environment. It is about awareness of the forces that shape their environment, options or choices that they have to help them act and achieve their goals, the resources required to positively change their environment and the ways of obtaining these resources. Interactional empowerment elements include: decision-making skills, problem-solving skills, leadership skills and critical awareness (Zimmerman 1995; Speer et al. 2001; Peterson & Hughey 2004; Aji et al. 2010). Among others, these skills help people to control their lives, become advocates and participate in activities.

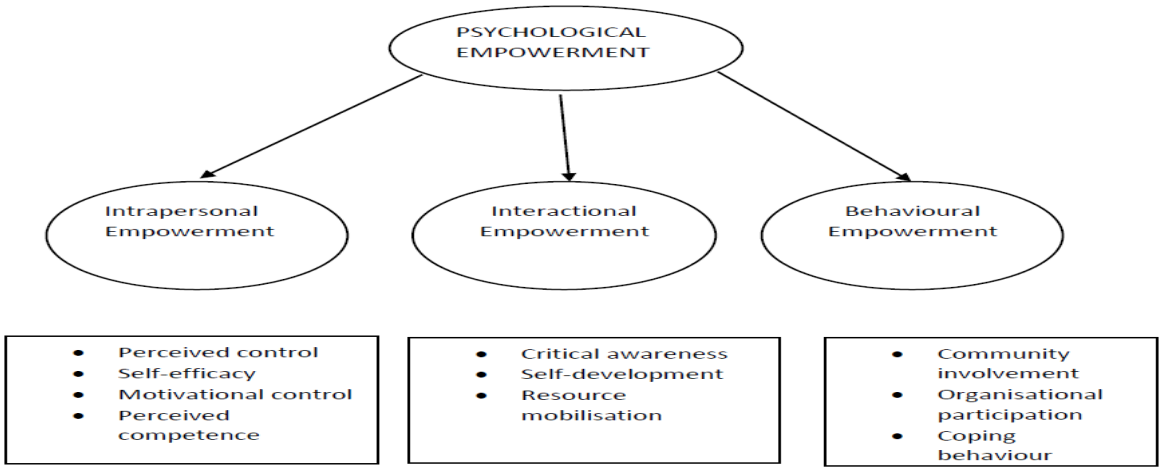

Figure 3: Zimmerman's Framework on Psychological Empowerment (Adapted rom Zimmerman 1995:588)

The ***behavioral component*** of empowerment constitutes activities in which people are involved to address needs in a particular environment (Speer 2000; O'Bryant 2003; Aji et al. 2010). The elements under this component of psychological empowerment are participation, community organization and coping mechanisms (Zimmerman 2000; Speer et al. 2001). Behavioral empowerment could be understood to occur due to acquiring the first two

elements of psychological empowerment i.e. intrapersonal and interactional components of empowerment. For example, after increasing self-esteem and being confident (intrapersonal empowerment); and acquiring leadership skills (interactional empowerment) people can take part in political leadership (behavioral component) to make changes in their communities. Furthermore, the intrapersonal component acts as a bridge between peoples' perceived ability to control their lives (intrapersonal component) and actually taking control (behavioral component) (Zimmerman 1995).

The Psychological Empowerment Framework is good for understanding outcomes of empowerment at individual level. The Psychological Empowerment Framework suggests that an empowered person is one that possesses all these components; and that to have a complete overview of the empowered person, all the components should be considered other than just focusing on one component. However, much as community involvement and organisational participation aspects of behavioural empowerment dimension of the framework are considered as outcomes of individual empowerment, these are largely activities through which people can lead to community empowerment. After all, literature in the fields of health and community psychology shows that these two aspects: community involvement and organisational participation can be associated with the community participation and community organisation, respectively, essential factors that foster community empowerment. For example, in the fields of health and community psychology, community involvement is concerned with being involved in active citizenship by participating in wider socio-political activities such as demonstrations which, in the end, can lead to change in policy (Peterson et al. 2005; Ohmer 2007; Ahmad & Talib 2016) which is one of the community empowerment indicators or outcomes at collective level as described in a later section. This implies that although behavioural component is an indicator of individual empowerment, it can also be the process through which community empowerment can take place. Therefore, although the behavioural component is considered as an outcome of individual empowerment in the Psychological Empowerment Framework, this study also considers it as a process that fosters community empowerment. For example, as I explain in more detail in Section 3.3.4., through *community participation*, a psychologically empowered telecentre user can partake in political and social activities that can, for example, lead to increased transparency in political institutions, an outcome of community empowerment; and can help increase self-esteem of other members (intrapersonal empowerment).

In sum, the Psychological Empowerment Framework is also good for partly understanding empowerment process. However, the empowerment literature in the fields of community psychology and health shows that there are more factors that influence community empowerment including sense of community and social cohesion which can also be linked to Social Capital Theory discussed in Section 3.3.3. In Section 3.3.4., I discuss each of these mechanisms. In this thesis, the mechanisms are also known as factors that influence community empowerment. Therefore, the words mechanisms and factors for community empowerment are used interchangeably.

3.3.3. Social Capital Theory

Social capital refers to connections and ties among people-social networks that are strengthened by norms of reciprocity and trustworthiness (Putnam 2000 as cited in Wang 2015). Social capital values connections and what one can benefit from others in such networks. It is about who one knows and not what one knows (Wang 2015) and enables people to act collectively (Woolcock & Narayan 2000). As such, Social Capital Theory aims at building ties, establishing networks which could be informal or formal and ensuring reciprocity among others (Godown & Quisumbing 2008 as cited in Fari 2015). Thapa and Sein (2010) provide three forms of social capital namely: bridging, linking and bonding social capital. Bonding social capital is about people who are close to one another such as families and close friends. Bridging social capital exists among people who are connected but distant who could include distant friends, colleagues and civil society organisations. Lastly, linking social capital is about relationships that exist between individuals and groups belonging to different social strata based on, for example, power and social status (Healy & Cote 2001 cited by Thapa & Sein 2010).

Furthermore, different authors categorize components of social capital differently. For example, Fari (2015) writes that seven components of social capital are: sense of belonging i.e. individual feeling secure when surrounded by and work with others; ii) networks i.e. networks that provide platforms for sharing ideas regardless of time; iii) feeling of trust thus people feeling secure when for example, in the same company or network; iv) diversity, v) reciprocity (people being assured of reward; vi) power; and vii) productivity and participation. Van den Hooff, Rodder and Aukema (2004) on the other hand, argue that there

are three ways that social capital manifests itself: i) obligations, expectations and trustworthiness among actors i.e. people do something for others out of trust and that may reciprocate; ii) information channels i.e. each actor is a source of information; and iii) norms and sanctions. The most common elements in these classifications are trust, norms, reciprocity, obligations, networks and ties.

In general, people using social capital have focused on examining social networks people involve themselves in; the extent to which people engage with others; and membership with associations such as civic associations within a particular community. In ICT4D studies, Social Capital Theory has been used in previous studies for various purposes. For example, a study by Wang (2015) that used data from 10 countries employed Social Capital Theory to understand how social capital influences people's use of ICT for various purposes. In the context of telecentres, studies have used Social Capita Theory for a range of purposes. For example, Thapa and Sein (2010) used the theory to understand how telecentres contribute towards social capital and found that telecentres led to *bonding social capital* by enabling users interact with their immediate family. A study by Yusop et al. (2010) employed Social Capital Theory in examining how network characteristics of communities i.e. groups and network factor contribute to success of telecentres. Among others, the study found that social capital contributes to success of telecentres because, when one is a member of a particular group, they could create awareness of telecentres among group members which, in turn, would encourage them use the facilities. Equally, employing the theory, Bailey and Ngwenyama (2013) found that, social ties make some people start using the telecentre. Closely linked to using Social Capital Theory as process is a study by Díaz Andrade and Urqubahart (2009) that aimed at investigating the possible consequences that ICT interventions may have on social relationships in rural communities having ICT interventions. Using two cases of individuals, one individual after learning computers in the city, became a telecentre manager who, in turn, trained others when he was working as a telecentre manager. However, this study, just like many other previous studies, does not give insights on how people empowered by the use of telecentres empower their communities due to social capital.

The evaluation of the theory in my study indicates that Social Capital Theory can be used to understand the factors that influence telecentres users to empower their communities. Particularly, using classification by Fari (2015), the three elements of the theory can be used to understand empowerment process. These include networks or social ties, sense of belonging, and participation. The following section discusses the mechanism or factors for community empowerment borrowed from Psychological Empowerment Framework, Social Capital Theory and empowerment literature from the fields of health and community psychology.

3.3.4. Mechanisms of achieving community empowerment

A community can constitute families, language groups or clan (Ward 1987). There is a link between individual empowerment and community empowerment. The link comes in because, as suggested by Laverack and Wallerstein (2001:182), community empowerment should be viewed as "a process in the form of a dynamic continuum, involving: i) personal empowerment; ii) the development of small mutual groups; iii) community organisations; iv) partnerships; and v) social and political action. This is in line with the three components of community empowerment identified by Torre (1986) as cited by Rissel (1994) which are: i) intrapersonal factors such as confidence and self-esteem; ii) mediating structures involving group mechanism in which members through active participation share knowledge; and iii) become critically aware of their environment; and macro factors referring to social and political activities that lead to community empowerment.

It can be summarised that community empowerment can exist due to three dimensions: individual empowerment, the mediating factors such as mutual groups and community organisations; and community empowerment. In other words, community empowerment begins with individual empowerment. This is followed by empowered individuals forming mutual groups or organisations after recognising that there is need for collective action to solve some common problem (Rissel 1994; Laverack & Wallerstein 2001; Laverack 2006). All these three factors or dimensions have to be present for community empowerment to take place. Therefore, even if an intervention such as a telecentre leads to individual empowerment, community empowerment may not take place if the empowered individuals do not engage in or possess mechanisms that would lead to collective action. Hence, it is

important to understand the mechanisms through which empowered individuals empower communities.

The mechanisms that lead to community empowerment mainly come from the fields of health and psychology empowerment literature. These include: community organisations, community participation, sense of community and social cohesion (Peterson & Hughey 2004; Peterson et al. 2005; Ohmer 2005; Leung 2009; Ahmad & Talib 2014; Mannarini et al. 2014; Cicognani et al. 2015). As stated above, these also partly relate to the Psychological Empowerment Framework, especially, its behavioural empowerment dimension which constitutes things that individuals get involved into to bring positive change into their lives or communities. They also partly relate to Social Capital Theory reviewed in the previous section.

Community participation is concerned with being involved in active citizenship through taking part in wider socio-political activities such as demonstrations and signing petitions to positively change policy in a particular community (Peterson & Hughey 2004; Peterson et al. 2005; Ohmer 2007; Petrič & Petrovčič 2014; Ahmad & Talib 2016). Community participation includes three components: i) civic participation, i.e., community action behaviour which identifies and addresses local problems, e.g., writing a letter influencing local policies (Peterson & Hughey 2004; Speer et al. 2001; Mannarini et al. 2014; Ahmad & Talib 2016); ii) organisational membership which is about being a member of a group such as parent group (Peterson & Hughey 2004; Speer et al. 2001; Mannarini et al. 2014; Cicognani et al. 2015); and iii) organisational participation, i.e. the frequency of participation in the organisations (Speer et al. 2001; Peterson & Hughey 2004; Ahmad & Talib 2016).

Community participation empowers communities because it helps in increasing people's feelings that they can influence decisions and leads to collective action, which promotes social change within communities (Rissel 1994; Cicognani et al. 2015). It helps to mobilise resources, increase democracy and empower people (Heritage & Dooris 2009). Furthermore, community participation increases psychological empowerment such as confidence and mastery of control (intrapersonal empowerment) (Itzhaky & York 2000; Peterson & Hughey

2004; Mannarini et al. 2014) and it is a means for critical awareness of social issues through communication (interactional empowerment) (Cicognani et al. 2015).

Therefore, this study proposes that through *community participation*, psychologically empowered telecentre users can foster community empowerment because community participation will allow the telecentre users to partake in political and social activities that can, for example, lead to increased transparency in political institutions, an outcome of community empowerment. Furthermore, *community participation* can enable the empowered individuals to empower other members within their communities such as families and friends by, for example, increasing their self-esteem and confidence (intrapersonal empowerment); and promoting critical awareness of issues surrounding their communities (interactional empowerment).

Social cohesion is related to community participation. However, it goes beyond community participation as it expands community participation through incorporation of trust or shared emotion and connectedness (Peterson & Hughey 2004). Social cohesion "addresses the level of engagement and social trust among community members," (Speer et al. 2001:717). According to Ritzen et al. (2000:n.p.) as cited by Gomez and Pather (2012:10), social cohesion enables "a group of people to demonstrate an aptitude for collaboration that produces a climate for change." It helps build trust within groups. Since *social cohesion* incorporates the notion of connectedness and trust, these two elements allow people to engage in collective action to change the lives of their communities such as improving health conditions of the community which may lead to social services empowerment, another indicator of community empowerment. Social cohesion also enables people to become aware of issues taking place around them and increase their competence (Baron & Gomez 2013). This implies that social cohesion may enhance empowered telecentre users' interaction with other community members in their social group, which, in the end, may help empower them through increasing their awareness of the issues. This suggests that both community participation and social cohesion help users empowered by telecentres to lead to both community and individual empowerment.

Sense of community involves a person feeling that they belong to a larger community. Sense of community is strengthened by people's emotional connection, interpersonal connection

and individual's recognition that they are important to one another and that their shared needs could be met only if they stay together (Macmillan & Chavis 1986 as cited by Ahmad & Talib 2016; Chamakiotis, Petrakaki & Panteli 2020). The link between sense of community and community empowerment comes in because people with sense of community work together with an aim of achieving collective goals for the betterment of their community. Sense of community also leads to problem coping behaviour (Rissel 1994; Petrič & Petrovčič 2014; Ahmad & Talib 2016). Sense of community can also be associated with social cohesion as they both deal with connectedness (Speer et al. 2001). However, the study treats these as separate factors. For example, the study views social cohesion from the lens of social connections that people have; and sense of community mainly on the feelings that people have that lead to working together with others who, sometimes, may not be connected to as long as they also aim at achieving community goals collectively.

Community organization is about individuals considering themselves as community members as well as engaging in strategic discussions to achieve the vision of the community (Leung 2009). Community organisation fosters community empowerment as it brings people together who, eventually, engage in strategic discussion, identify community problems and gather resources for solving particular problems with an aim of achieving community vision. Through community organisations, people collectively identify problems that affect their community, come up with common goals, and identify and organise resources to address the problems and achieve the goals they set collectively (*ibid*).

Literature review indicates that the relationship between empowered individuals and community empowerment through the above outlined mechanisms can be determined by several factors such as incomes, education and norms. For example, depending on the context, some activities could require members to have particular conditions such as qualifications and high incomes to participate. Therefore, even if individuals with low incomes and low educational levels are empowered by telecentres, they would fail to participate in such activities that would lead to community empowerment. In addition, much as social cohesion may have positive impact on community empowerment, social cohesion may also pose as hindrance to empowerment at both individual and community level. Some people would be advised not to use the telecentres by their peers or friends. For example, in their study, Venkatesh et al. (2016) found that some women did not use kiosks to get

information related to health to reduce mortality because their social ties restricted them from using such facilities, which, consequently, had negative effect on their children's health and ended up losing them; while other women used the facilities because their social ties encouraged them which, eventually, had a positive effect on health of children. In addition, the effects of social cohesion are determined by a myriad of factors such as incomes and gender and time. For example, social groups or social ties may have rules or have a negative attitude towards community members who are not considered part of their groups (Mullins 2007) which may cause the empowerment effects of telecentres to be limited to only those who are members of the groups hence posing a hindrance to overall community empowerment. Furthermore, some people may have limited time to draw benefits from social ties (Rock et al. 2017).

3.4. Research Framework

As discussed in previous sections, the Research Framework is based on Psychological Empowerment Framework while borrowing some elements from Alternative Evaluation Framework. The study also uses concepts from empowerment literature in health and community psychology fields and Social Capital Theory. The main aim of the research framework is to guide in understanding how empowered users of telecentres empower their communities. It also proposes the link between individual and community empowerment which the current literature lacks.

3.4.1. The Use of the Research Framework

The use of Psychological Empowerment Framework helps us understand empowerment as an intangible facet. It helps us understand empowerment at individual level. It also helps us in partly understanding empowerment process through some aspects of behavioural empowerment especially community participation and community organisation that, aside being under behavioural component of individual empowerment, they act as mechanisms for community empowerment in the Research Framework. One limitation of the Psychological Empowerment Framework is that it lacks community empowerment indicators or outcomes. The weakness is addressed with the inclusion of the elements from the Alternative Evaluation Framework. In addition, both Psychological Empowerment Framework as well as Alternative Evaluation Framework are not adequate to fully understand empowerment process as both do

not show the link between individual and collective empowerment. The Research Framework addresses this limitation by combining some aspects of behavioural component of individual empowerment in Zimmerman's Psychological Empowerment Framework with some aspects of Social Capital Theory and empowerment literature on mechanisms fostering community empowerment from the fields of health and community psychology.

The framework is being used to indicate gaps in the literature and show the theoretical contribution that I am making. Furthermore, the framework is being used to show the focus or parameters of the study; and the domains of the study which include: telecentres, individuals and the community. The following section describes the elements of the framework.

3.4.2. Elements of the Research Framework

Briefly, the Research Framework shown in Figure 4 proposes that there is a link between accessing and using ICTs such as telecentres and community empowerment. The link begins with people having access and using ICTs, which, eventually, may lead to individual empowerment. The empowered individuals, through engaging in activities such as community organisation, may, in the end, lead to community empowerment. The Research Framework has four main elements or concepts: access to telecentre services/ICTs, empowered individuals; community' and mechanisms for community empowerment.

The arrow between telecentres and empowered individuals, Arrow A proposes that when individuals use telecentres, they may get empowered. The Research Framework further suggests that individuals who have been empowered by the use of telecentres help to empower the community which could be their families, friends, workplace and community at large. As already alluded to above, the empowered users may empower communities through activities or mechanisms such as community participation, community organisation, sense of community and social cohesion. In that case, the individuals support the community.

Furthermore, the framework proposes that there is a mutual relationship between the telecentre and the community. Firstly, the telecentre draws resources from the community. The resources could be people who use the telecentre; the money that people bring with when using the services; the people working in the telecentre and any other support. At the same

time, the telecentre gives back to the community by empowering individuals as well as the community for example.

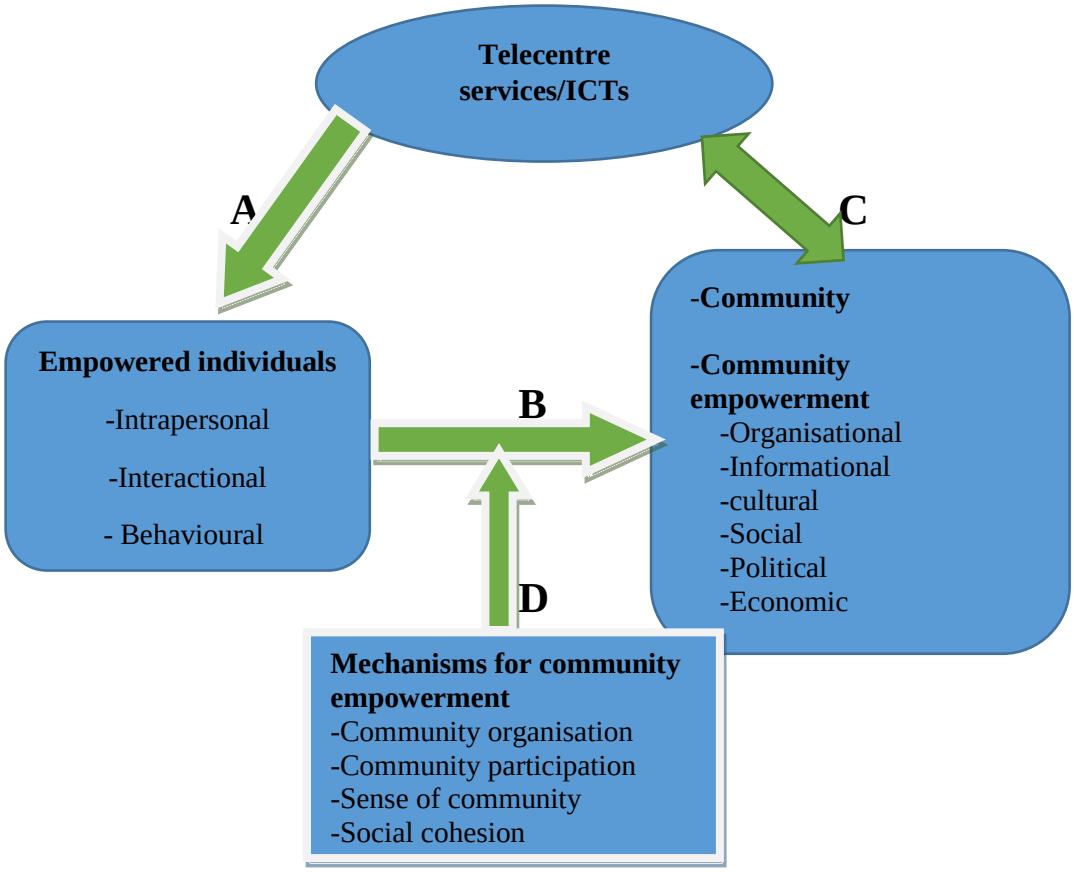

Figure 4: The Research Framework

In what follows, I describe each of the three elements or concepts of the Research Framework. The mechanisms through which empowered individuals empower communities exist in the arrow between empowered individuals and community, Arrow D.

3.4.2.2. Empowered Individuals

The Research Framework posits that people's access to and use of services offered by telecentres can lead to individual empowerment. A relationship that is represented by Arrow A in Figure 4. The individual empowerment in the framework mainly links to the first two components: intrapersonal, interactional and behavioural empowerment. The intrapersonal empowerment is concerned with how individuals think about themselves, which, ultimately, has an influence on the achievement of their goals. The interactional empowerment is about people's awareness of the forces shaping their surrounding environment. Finally, behavioural

empowerment is about activities people engage in such as demonstrations and signing petitions to make changes in their communities (Zimmerman 1995; 2000; Aji et al. 2010)

3.4.2.3. Community

A community could be a collection of families, language groups or clan. Furthermore, a community may consist of heterogeneous persons that collectively take an action with an aim of achieving a common goal (Ward 1987). Community empowerment is broader than individual empowerment as it comprises people's ability to form groups, organisations as well as partnerships to collectively achieve goals (Rissel 1994; Gigler 2004). As stated above, the empowered individuals, through various mechanisms including social cohesion, sense of community, community organisation and community participation can empower communities. For example, through social cohesion, the telecentre users who are empowered may empower others they are connected to by raising awareness of current affairs or sharing the skills that they have gained from the telecentre. Arrow B represents conversion of individual user empowerment into community.

Community empowerment can be reflected in individuals who do not use the telecentres (such as friends and families of users) i.e. individual empowerment already described above; as well as at collective level (community empowerment). The indicators of community empowerment include: *Informational* such as strengthened information systems; *organisational* e.g. transparency in selection of leaders; s*ocial* thus improvement social services such as health and educational services in the community; *political* involving improvement in participation in political systems and increased transparency in political institutions; *economic* which is about improved economic opportunities in the community; and c*ultural* which, among others, may include strengthened indigenous systems and languages and improvement in the dissemination of communities of culture (Gigler 2004; 2011).

The double arrow that exists between telecentre and community, Arrow C proposes mutual relationship between these two concepts. Specifically, the telecentre supports the community as it empowers users who in turn empower their community; and the community supports the telecentre by virtue of having it in the community and through users who access its services.

3.4.2.4 Mechanism for Community Empowerment

The mechanisms for community empowerment stand for factors that influence community empowerment. Arrow D stands for these mechanisms. The framework proposes that although there is a link between individual empowerment and community empowerment, this is mediated by factors that include social cohesion, sense of community, community organisation and community participation. Thus, according to the Research Framework, empowered telecentre users empower their community when they are connected to others, when they feel a sense of belonging to the community, when they take part in community organisations and or through community organisation.

In summary, the three concepts: telecentres, empowered individuals and the community and their inter-relationship constitute the core domain. The focus on these helped in answering research questions. Consequently, it helped understand how telecentres curb digital exclusion by focusing on empowerment effects of ICT4D projects beyond users hence contributing to the debates on effectiveness of ICT4D projects on digital exclusion.

Overall, in this chapter I have reviewed literature on theoretical understandings on the effects of ICTs on community empowerment. Figure 4 shows the core domain of my research that are: empowered individuals, community and telecentre. Table 5 summarises the main concepts identified in the literature that form the basis of the Research Framework which are of interest to my study.

Table 5: A Summary of the Main Concepts that Derive from the Research Framework

Access and use of Telecentre	Telecentres provide public access to ICTs such as computers, Internet, printing, photocopying; and computer training. People have to use the telecentre services in order to get empowered.
Empowered individuals	These are users of the telecentres, whom, after using the telecentre have been empowered. The empowerment at individual level could be: ○ *intrapersonal* which is about how people evaluate themselves such as self-esteem, self-efficacy, and confidence that facilitates goal achievement. ○ *interactional* that is concerned with people being aware of what shapes their surrounding environment. ○ *Behavioural* which is about individuals taking part in activities that positively change things in their communities.
Mechanisms of empowering communities	Empowered individuals may empower communities. However, this may depend on factors or mechanisms such as ○ *Community organisation* which involves empowered individuals

	engaging in discussions that help in achieving vision of their *communities* o *Community participation* in which empowered users become active in social and political activities such as writing petitions and demonstrations that end up bringing change in their communities; and which helps in increasing self-confidence and critical awareness of the people participating in the activities. o *Sense of community* which is about individuals having a sense of belonging to a community. This, eventually, helps individuals to work collectively with an aim of achieving collective goals together. It also facilitates problem coping behaviour. o *Social cohesion* which is about the connectedness people have with others. The connectedness can help in sharing issues and or working together to achieve collective goals
Community	This is a group of people A community could be the immediate community such as family, friends and workplace of users; and beyond.
Community empowerment	Individuals empowered by telecentres may empower communities. The empowerment may be at individual (i.e. users empowering their friends, families or colleagues) or at collective level. Empowerment at collective level could be: o *Informational* which is about improvement in information flow systems within the community such as strengthened information systems. o *Organisational* which relates to the way things are conducted in the community such as being transparent in choosing leaders. o *Social* concerned with improving the status of social services in the community such as effective hospitals. o *Economic* which is about promotion of economic opportunities such as increased access to markets. o *Political* about political systems being transparent and accountable to their communities as well as improved participation of community members. o *Cultural* such as strengthened indigenous systems within the communities.

3.4.2.1. Telecentre Services/ICTs

Physical access to ICTs such as telecentre services like computer tutorials, Internet and computers is a means to realize empowerment. Despite this, the availability of ICTs does not automatically lead to empowerment but rather, the use of ICTs (Grunfeld 2011; Hatakka & De 2011). Therefore, for telecentres to have impact on individuals and communities, people need to access and use their services.

3.5. Chapter Conclusion

The chapter has reviewed theories applied on the effects of ICT4D projects such as telecentres on empowerment. Throughout the review, the chapter has been identifying gaps in the theories in relation to the aims of my study. For example, the Psychological Empowerment Framework is not sufficient to understanding empowerment process and understanding empowerment outcomes at community level, while Alternative Evaluation Framework is only good for understanding community empowerment outcomes and not empowerment process. The chapter has also provided a description of the research framework for my study. The chapter has further discussed the main aim of the research framework, which, among others, include: to show the research gap discussed in Chapter 2, to show the focus of the study; and to guide the data collection. In the next chapter I present and discuss methodology that guided the study.

CHAPTER FOUR: RESEARCH METHODOLOGY AND DESIGN

4.1. Introduction

The main aim of my study is to understand how individuals empowered by telecentres in turn empower rural communities. This chapter aims at explaining the different methodological perspectives to research and to select the appropriate ones for my study that guided in understanding how telecentres empower rural communities in developing countries with specific interest in Malawi. The choice of the methodology is based on the stated aim as well as the research questions which include: '*how do individuals empowered by telecentres empower communities?'* and '*what are the factors that enable these empowered users to empower their communities?'* The aspects covered in this chapter include the philosophical approach, the research strategy, the study context, the case study approach, the data collection methods, and the targeted participants. It also discusses ethics followed during the study.

4.2. Research Philosophical Approach

Research philosophy is defined as "systems of beliefs and assumptions about the development of knowledge" (Saunders et al. 2016:150). Since research is about developing knowledge, it is important to discuss the philosophical approach for every research. Philosophical approach influences the type of data to be collected as well as the data collection methods and interpretation of results to be used (Gray 2013). There are two main categories of philosophical assumptions: ontology and epistemology.

4.2.1. Ontology

Cassell (2015:10) defines ontology as "the philosophical study of being, existence and reality….." Ontology is about "what is there that can be known?" and/or "what is the nature of reality?" (Guba & Lincoln 1989:83). It is how one views the world as it really is (Gerring 2004). Bryman and Bell (2015) identify two main ontological positions namely: objectivism and constructionism.

Objectivism, which some scholars (such as Raddon 2010) call realism, "implies that social phenomena confront us as external facts beyond our reach or influences" (Bryman & Bell

2015: 32). Those who subscribe to this notion believe that there is only one single truth or reality that exists for every phenomenon to be known (Johnson & Duberley 2000). When it comes to research, researchers can be said to look for objective truth that has been lying out there to be grabbed by them.

On the other hand, ***Constructionism,*** also known as subjectivism by some scholars (such as Guba & Lincoln 1989; Saunders et al. 2016) challenges the objectivist ontological position that realities such as culture and organisations are pre-given implying that they do exist independent of researchers (Bryman & Bell 2015). For social constructivists, realities do not exist independent of themselves as researchers but are "artificial creations that come into existence through our talk or discourse" (Cassell 2015:10). During interviews for example, the interviews are considered as co-producing the text and not "an account of any real-world phenomenon." Furthermore, the constructionists focus on meaningful reality. To them, meaningful reality is constructed by people as they interact with their social world and the meaningful reality is transmitted within social contexts (Ahmed 2008). Unlike the objectivists, constructionists claim that there is "no true or valid interpretation and that there is "no 'pure' data as all data are mediated by our own reasoning as well as that of participants" (Johnson & Duberley 2000:59). It allows collaboration between the researcher and participants in which participants are allowed to tell their 'stories' (Baxter & Jack 2008).

This study applied the constructionism ontology. The social phenomenon under this study, i.e. how individuals empowered by use of telecentres empower their communities, is created or exists based on the actions and perceptions of the social actors concerned with their existence. The social actors in this context are the people in the concerned communities. Therefore, as a researcher, I interacted with the social actors to understand the phenomenon. In the course of their participation to this study, participants were telling their 'stories'; these stories helped me understand their actions, behaviour as well as how empowered telecentre users empower rural communities.

4.2.2. Epistemology

Epistemology is a theory of knowledge. It is concerned with criteria for determining what does or does not constitute acceptable scientific knowledge (Cassell 2015) and how that knowledge can be obtained (Crotty 2003; Raddon 2010). According to Bryman and Bell (2015), the main concern in epistemology is whether researchers should study the social sciences by applying the same principles and procedures that are applied in the natural sciences. The two main types of epistemology are positivism and interpretivism.

Positivism employs the natural sciences principle, whereby it studies humans or human beings as animals or objects, which are the focus in natural science research (Cassell 2015; Bryman & Bell 2015). The positivism epistemological approach employs objectivist or realist ontological approach, which states that facts are facts, and which claims that reality exists with or without people's knowledge or consciousness (Lee 1991; Crotty 1998). Therefore, the positivism epistemology believes "that the social world consists of concrete and unchangeable reality which can be quantified objectively" (Rahman 2016:102). The research undertaken using the positivism approach aims at explaining "how and why things happen" (Raddon 2010:n.p.) hence focus on casual effect relationship (Johnson & Durberley 2000). Furthermore, it aims at predicting the social world occurrences that include predicting what will happen in the future or what would happen because of some interventions (Ahmed 2008) by, among others, examining correlations and measurements (Burrell & Morgan 1979; Artioli et al. 2017). The researchers do these measurements quantitatively using quantitative methods such as questionnaires, structured interviews and experiments (Gray 2013). Furthermore, the explanations and predictions are achieved using hypotheses and theories. As such, research studies conducted with this epistemological approach are said to aim at testing theory (Bryman & Bell 2015). In addition, the results are taken as facts and can be used for generalisation (Johnson & Duberley 2000) depending on sampling strategy (Cassell 2015); and law development (Crotty 1998).

Since positivism aims at discovering objective knowledge, the role of researcher in the studies employing this epistemological position is passive such that researchers are considered as outsiders (Fitzgerald & Howcroft 1998) and scientists (Raddon 2010) observing things from a 'distance'; and that there exists rigid relationship between the subject

and researcher (Dudovskiy 2017). The researchers make sure that they minimise bias by employing standardised tools such as questionnaires and structured interviews as already alluded to (Cassell 2015).

Interpretivism takes a different stance to positivism. It is believed that people who were against a positivists' stand that the social sciences should be understood the same way as natural sciences developed interpretivism. The proponents of interpretivism approach argue that the social world's subject matter, "people, and the physical and social artifacts that they create, are fundamentally different from the physical reality examined in the natural science" (Lee 1991:374). The interpretivists aim at obtaining subjective knowledge (Raddon 2010). Therefore, unlike the positivists who employ objectivism, the interpretivists employ the subjective ontology or the social constructionist ontology which views reality as socially constructed by people as they interact with objects in the world and that the reality can be changed and is subjective (Marcon & Gopal 2005; Gray 2013). Furthermore, the approach believes that, unlike the objects studied in the natural sciences such as atoms, people attach meaning to their world (Crotty 1998). Therefore, reality can be changed, hence interpretivism believes in multiple realities, which depend on the framework of reference and context (Bharadwaj 1996). As such, studying the social sciences is done using different methods from those applied in the natural sciences.

Unlike the positivists whose aim is to explain "how and why things happen", the interpretivists aim at understanding "how and why things happen" the way they do (Raddon 2010:n.p.). The understanding is based on principle of Verstehen by Weber, which is mainly concerned with understanding meaning of action based on point of view of the actor and within context (Dudovskiy 2017). Sometimes the understanding is arrived at with the use of different methods such as in-depth interviews together with observations to uncover various aspects of the topic (Ahmed 2008; Raddon 2010).

When carrying out research using interpretivism, the implication is that the researcher makes sure that they engage people who are involved in the activities under study, with an aim of

understanding the phenomena through stories about their experiences, opinions and attitudes (Ahmed 2008). Further, the researcher and participants mutually construct meaning and knowledge through the interaction between them (Trauth & Jessup 2000) whereby the researcher is able to take the emotions and meanings of the subjects seriously during the interaction (Smith & Elger 2014). The researcher may also take part in the phenomenon that they are studying, by, for example, engaging in participant observation with an aim to deeply understand the phenomena. When the researcher is involved, their emotions and understanding of the phenomenon are set aside to allow direct experiences speak to them (Gray 2013). This makes the researcher who is adopting this approach to be regarded as an insider other than outsider; and that there exists participative relationship between the subject and the researcher. As such, interpretivism may employ qualitative methods such as in-depth interviews and observations which help in understanding the topic in a holistic way (Artioli et al. 2017). The approach also helps in guiding theory (Crowe et al. 2011) which is arrived at, at the end of data analysis (Dudovskiy 2017). However, the results from interpretivist approach are not generalizable but are rather valid for the context being examined (Trauth & Jessup 2000; King & Horrocks 2010).

This study employed interpretivist epistemology. This is because the interpretivist approach allowed the phenomena to be investigated from the eyes of the participants. In this case, for me to understand how empowered telecentre users empower communities, I did not go into the field with a list of options for the participants to choose from which is common in positivism. Adopting interpretivism helped me to enable participants to indicate their experiences. The present study employs interpretivist approach because, to answer the questions, the participants themselves needed to be asked. Furthermore, my study focuses on empowerment which is a concept that is understood differently by different people hence interpretivism is more applicable. In other words, instead of one single truth that would be investigated using positivism, there existed multiple truths for the concept of empowerment, hence adoption of interpretivism which helped me discover the multiple realities. Moreover, the approach helped me derive meaning depending on how people interpret situations and happenings. I tried to understand these different interpretations based on what participants told me concerning on what they do on the ground rather than going in the field with predetermined responses which is the principle in the positivism.

In addition, interpretivism was applied because this research aims at developing in-depth understanding of how telecentre empowered users empower rural communities. Interpretivism is essential for this research aim because the approach allows me to interpret data as the data is speaking to me the researcher. The approach allows themes to emerge during data analysis which allows the framework to be developed at the end of the analysis. Much as the results of this study are not generalised, the use of interpretivism helps in producing data that furthers our understanding of effectiveness of telecentres in empowering rural communities of developing countries. In other words, the results are not generalised but rather be valid for the context being examined. In addition, the study uses interpretivism because it helped in investigating the topic under study in holistic way. Among others, this was achieved through use of open-ended questions and observations as described in a later section.

In sum, on ontology and epistemology, this study employed constructionism and intepretivism respectively. Moreover, being a qualitative research, as argued by Bryman and Bell (2015), among others, qualitative research applies interpretivist epistemology and constructionist ontology.

4.3. Research Strategy

There are two main research strategies. These are the quantitative research strategy and qualitative research strategy. This section discusses these strategies before describing the strategy that I am employing in the study.

4.3.1. Quantitative Research Strategy

Quantitative, as the name entails, is about quantification during data collection as well as analysis (Leedy 1993; Bryman 2012; Hussein 2015). The strategy is concerned with quantity of things and statistical patterns in the data. The main research questions answered using this research are those concerned with "how many, how much, to what extent" (Rahman 2016: 105). As such, quantitative research gathers data that is numerical, gathered using structured instruments such as questionnaires or structured interviews (Research Methodology 2018; USC Libraries 2018). The emphasis in quantitative research is on testing theories hence the

strategy employs a deductive approach. In this case, the research starts with a theory in mind and hypotheses are developed with an aim of testing the theory (Gray 2013). Quantitative research follows the principles of the natural sciences, particularly positivism (which was described above). In addition, it views social reality as objective thereby applies objectivism ontology (Kumar 2005; Research Methodology 2018). Some of the preoccupations of quantitative research include: measurement of the phenomenon hence concerned with reliability and validity; causality thereby examining its causes and not description of how things are; predicting phenomenon and generalising the findings of research beyond the context in which the research was done hence rely on representative sample (Leedy 1993; Ivankova & Creswell 2006).

Some of the advantages of quantitative approach include generalisation owing to its use of large and representative samples (Rahman 2016) and leads to reliability and objectivity of data as the researcher is detached from the research (USC Libraries 2018). Despite this, quantitative research also has disadvantages. For example, quantitative research associates people with world nature by employing the natural sciences model reflected through the positivism stance. Employing the positivism stance makes research leave out meaning and explanations of the social phenomenon (Denzin & Lincoln 2011). Furthermore, being confined to positivism stance means that the research fails to account for how individuals interpret their own actions as well as those of others (Rahman 2016).

In addition, the use of instruments that are administered to the participants through questionnaires and structured interviews as well as the use of experiments pose as hindrance to the link between research and everyday life (Bryman & Bell 2015); and that the instruments may lead to reflecting the researchers' view of the perspective and not that of the participants (USC Libraries 2018). In other words, it does not allow people to explain as to how they experience the phenomena. The other disadvantage is that its emphasis on relation of variables implies that social life is static and independent of people's lives (Blumer 1956 as cited by Bryman & Bell 2015). This view of relationship implies that "we do not know how what appears to be a relationship between two or more variables has been produced by the people to whom it applies" (Bryman & Bell 2015:170). In addition, the quantitative research strategy misses out contextual detail; it does not shed light on the phenomena which

is available with qualitative strategy; the results do not have details of people's behaviour and that the research is not conducted in the natural environment (USC Libraries 2018).

4.3.2. Qualitative Research Strategy

Qualitative research, as put by Mack et al. (2005), is a type of research whose aim is to understand the research problem from peoples' words and perceptions. As observed by Atieno (2009), qualitative research is interpretive and anthropological in nature that studies the whole phenomenon to evaluate its complexity. To achieve its aims, the approach relies on in-depth observations and explanations. Some of the assumptions of qualitative research include: interest in meaning; reliance on field which enables the researcher record behaviour in natural setting; reliance on inductive reasoning in which theory is developed from details; and conducting research that is descriptive; and qualitative research is exploratory (Atieno *ibid*).

Qualitative research is used when little is known about the topic under study (Corley & Gioia 2004). The qualitative research approach brings about in-depth understanding of the phenomenon under study (Mack et al. 2005). This may be attributed to the fact that, among others, qualitative research involves use of open-ended questions which allow participants to explain in detail. Moreover, qualitative research helps to understand the problem under study from the way the participants under study experience it (Denzin 1989; Mack et al. 2005; Bryman & Bell 2015). Furthermore, applying qualitative research involves fieldwork in which the researcher goes to the context where the study is carried out and mostly be part of that community to better understand the problem (Atieno 2009). Qualitative research approach also allows flexibility during data collection (Rahman 2016), which is essential for topics that have not been explored before. Some of the disadvantages of qualitative research are that research results cannot be generalised to wider contexts; and that data analysis tends to be complex (Atieno 2009).

4.3.3. Research Strategy Adopted for the Study: Qualitative Strategy

This research adopted the qualitative approach as this helps in developing an in-depth understanding of the phenomenon under study. In addition, for me to ably understand how

telecentre empowered users empower their rural communities, I had to go to the context, i.e. rural communities where the research was to be carried out and be part of the community to see how things take place hence its application in this study. Furthermore, for me to have a comprehensive understanding of how empowered telecentre users empower rural communities, I needed to ask the concerned people so as to make sure that I understood the problem from the way the concerned people experience it. Therefore, other than going into the field with a set of answers from which participants can choose such as in survey research, with qualitative approach, I allowed participants to speak and tell their story the way they experienced it. This allowed me to understand and see the problem under study in the eyes of the people being studied. Eventually, this also helped me have a comprehensive understanding of the topic in the specific contexts. I am interested in rural communities of developing countries hence the application of qualitative approach. Since my study employed qualitative methods such as focus groups, semi-structured individual interviews and observation (described in more details in the following section), I was able to come up with findings obtained through direct interaction with participants and record things as they happened through observation.

The other reason for adopting the qualitative approach is that, as stated in previous chapters, there is lack of knowledge on the link between individual empowerment and community empowerment due to effects of ICTs. In other words, the topic has never been explored before. Therefore, questions to ask the participants cannot be predetermined as quantitative approach does. Although I had some topic guides/questions, some follow up on questions were asked based on the responses of the participants, which were based on their experiences hence adoption of a qualitative research approach. The strengths of the qualitative approach outweigh the limitations in relation to my topic hence its adoption.

4.4. Case Study Approach

4.4.1. Overview of the Case Study Approach

This study was carried out using the case study approach. Although there is no single definition of a case study, the study adopts the definition by Crowe et al. (2011:1) who view case study as "a research approach that is used to generate in-depth, multi-faceted

understanding of a complex issue in its real life context." To study a phenomenon intensively, a case study uses different data collection methods (Creswell 1994). The case study approach has weaknesses such that some scholars (e.g. George & Bennett 2005) do not support its application. One of the main criticisms of the case study approach is that the findings from case study cannot be generalised because its findings depend on single or a few cases in examining a problem (Yin 1984) and that case studies mostly rely on small number of subjects which make it difficult for generalisation (Zainal 2007). Case studies are also criticised because they lack rigour, which poses the possibility of "equivocal evidence or biased views to influence the direction of the findings and conclusions" (Yin 1984:21). Furthermore, case studies may not be able to capture long term impacts of interventions as the impacts may change over time (George & Bennett 2005).

Despite the above outlined limitations of the case study approach, case study remains a popular approach in the literature owing to its strengths. Moreover, the strengths of the case study outweigh the weaknesses hence its adoption in this study. One of the strengths of case study is that it helps the researcher to have an understanding of the complex phenomenon in its natural setting (Yin 2003; Bennett & Elman 2007) i.e. in the context in which it takes place (Zainal 2007). Moreover, case studies are also essential when contextual information is important to answer the problem (Baxter & Jack 2008). Furthermore, the case study approach not only helps understanding a phenomenon in the context it occurs but also understand the complexity of the phenomenon (Zainal 2007:4). In addition, as observed by Flyvbjerg (2006: 235) case study helps the researcher to "close in real-life situations and tests views directly in relation to phenomena as they unfold in practice". This, eventually, helps in understanding human behaviour (Zainal 2007).

The study adopted the case study because it helped me have an understanding of the complex phenomena in its natural setting. As stated in previous chapters, empowerment, a phenomenon I am studying, is complex. In addition, my study focuses on the effects of ICTs on empowerment in the context of rural areas of developing countries focusing on Malawi. Therefore, although there are many developing countries, the study only focused on Malawi and not all developing countries. In addition, there are many telecentres in Malawi, I found it essential to study this in real life context of only two telecentres to have a detailed understanding of the topic other than targeting all telecentres in the country. Furthermore,

contextual information of rural areas in understanding how telecentre empower communities in the rural areas is important in my study. It was, therefore, important to conduct the study within such communities hence the adoption of case study.

In addition, case study approach is essential when in-depth study and holistic investigation is required (Crowe et al. 2011; Mukherjee 2017) as it encourages the use of multiple data collection methods or data sources (Gerring 2004; Sandelowski 1996). I adopted the case study approach with an aim of having a holistic, in-depth and comprehensive understanding of how telecentre empowered users empower rural communities. To achieve this, I employed multiple data collection methods including focus groups, individual interviews and observations which are described in a later section. Furthermore, the use of case study helped me be close and observe the activities as they take place. For example, the use of observation in this study helped me in understanding the behaviour of telecentre users or the activities they engage in empowering rural communities.

A case study is essential for knowledge building in the social science (Flyvbjerg 2006) as well as theory development (Baxter & Jack 2008) hence it is widely adopted in social science studies including my study. As stated in the previous chapters, we do not really know how users empowered by telecentres empower rural communities hence this study aims at building such knowledge; and that this study aims at building a framework for understanding how telecentres empower rural communities through users in developing countries. Therefore, a case study was adopted. Although case studies are criticised for lacking generalisability, that criticism is only valid if one wants to generalise to the whole population. However, one can generalise for theoretical propositions which means generalising theories (Yin 2003; 2014; Carminati 2018). This implies that the theory developed in a particular study that adopted case study approach can be employed in other studies on similar topics. Therefore, the findings in my study are not used to generalise for all rural communities of all developing countries; but rather, scholars in ICT4D can use the theory developed through this study to understand the phenomena in other rural communities beyond Malawi.

4.4.3. Types of Case Studies: Single Case Versus Multiple Cases

Studies adopting case study approach can adopt single case or multiple cases. This section describes these two types of case studies, followed by a discussion of the case study type that the study adopts.

4.4.3.1. Single Case Study

In simple terms, a single case study is about targeting one case to understand the phenomenon under study. Just as with multiple cases, several factors need to be considered when adopting the single case study approach. For example, a single case is mostly used when there are no possibilities of replication i.e. when the problem only applies to one unit that other units cannot be included (Zainal 2007). In addition, when using a single case, the case selected should be critical i.e. the one that supports theoretical propositions. In this case, it can help in challenging, confirming, disconfirming or extending the theory. A single case can also be used if it is an extreme or unusual case, a common case or revelatory in which a research examines situation which was inaccessible by other scholars; or longitudinal case in which the research will study case at different points/times (Yin 2014).

One of the advantages of the single case study is that it helps to provide rich and holistic account of the phenomenon under study (Gustafsson 2017) which is more important with the studies whose aim is to measure and test (Willis 2014). A single case study is also important for questioning old relationships or theories (Gustafsson 2017). The other advantage of single case study is associated with the costs and time as well as energy. Since the focus is on one site, single case studies are economical as compared to multiple case studies (Willis 2014). The main drawback is that single case study poses problems when it comes to generalizing conclusions as it only relies on data from single unit yet other cases left out may have different realities (Zainal 2007).

4.4.3.2. Multiple Case Study

Multiple case studies involve more than one case whereby data is collected either concurrently or sequentially with an aim of having a broader appreciation of the phenomenon (Crowe et al. 2011). Multiple cases can be used when there are several sources of evidence on the topic under study (Yin 2014; Gustafsson 2017). In addition, multiple cases are used if the addition of more case(s) adds new knowledge (Gustafsson 2017). Multiple case studies help

to explore the research problem comprehensively; and its results are more reliable and stronger (Heale & Twycross 2018). Multiple case studies also help the researcher analyse data with great confidence (Gerring 2004; Baxter & Jack 2008). Multiple cases help in analysing both within and across cases. This also helps in identifying the similarities as well as differences existing between cases (Yin 2003; Crowe et al. 2011; Yin 2014; Mukherjee 2017). In addition, multiple cases help in creating a "more convincing theory when the suggestions are more intensively grounded in several empirical evidence" (Gustafsson 2017: n.p.). In other words, they are essential for theoretical evolution based on evidence from multiple cases.

Despite the advantages, multiple cases are likely to pose some challenges which may include: less time to spend on each case (Dyer & Wilkins 1991) and that they are expensive and may consume a lot of time for the researcher to study each case in detail (Baxter & Jack 2008; Yin 2014). In addition, reporting results from multiple cases is challenging as compared to those from single case (Heale & Twycross 2018).

4.4.3.3. Case Study Approach Adopted

My study adopts the multiple case study type. Specifically, I had two telecentres in my study–Telecentre A and Telecentre B. The Malawi Government through MACRA established both telecentres. Individuals such as telecentre users are the unit of analysis for this case study.

One of the reasons why I adopted a multiple case study type is because there are many telecentres in Malawi. Although the findings of my study are not generalisable to all developing countries, the study aims at getting a picture of how telecentres users empower rural communities in Malawi where telecentres exist in different models in terms of how they are managed as discussed in Section 4.5.2. Adoption of multiple cases allowed inclusion of more than one model. Specifically, the cases chosen for the study fall under different models i.e. Telecentre A is a community managed telecentre and could be associated with multipurpose telecentres described in Chapter 2; Telecentre B is managed by entrepreneurs. Moreover, to get a picture of Malawian context, one case study would not be sufficient. Furthermore, preliminary contacts with the managers of both telecentres showed that the

telecentres were empowering communities in different ways. For example, Telecentre A was empowering the communities by helping empowered users set up businesses such as cybercafés, which are helping other people in the community. Similarly, empowered users of Telecentre B had been able to set up organisations such as Prison Fellowship Malawi, which is an organisation that aims at helping ex-convicts to become better and responsible community members. In this case, multiple cases helped me see the similarities as well as differences in the way the two telecentres were empowering rural communities, a concept referred to as cross-case comparison. Indeed, the analysis of the cases confirmed the differences and similarities. For example, Telecentre A empowered users by enabling them to get employed; and some furthered their career in ICT such as pursuing diploma in ICT studies after participating in computer tutorials offered within. While at Telecentre B, much as some users were able to get jobs, it was through the use of job vacancies information available in the telecentres and that users were setting up organisations and clubs after using the telecentre to write up proposals on funding for the projects. Appendix J provides more information on similarities and differences. These are also discussed in detail in Chapter 7 which focuses on cross-case analysis. I also adopted the multiple case study to explore the problem comprehensively.

Furthermore, my study aims at developing a theory for understanding the effects of ICTs on empowerment in rural communities. Therefore, adoption of the multiple case is essential to achieve this aim. For example, analysis of the cases has shown that telecentres users act as mediators of community empowerment which is enabled by myriad of factors which, sometimes, may differ on how they work depending on the type of communities they serve. For example, sense of community enables users of both telecentres to empower their communities. However, for telecentres which are located in relatively townships where people just come, the feeling that when they move to another place the community will suffer does not work. In addition, community organisations enable users to empower others but this only works where there are organisations. In this study, community organisations worked for Telecentre B and not A. If I had only targeted Telecentre A for example, community organisations would not have appeared as an enabler for community empowerment in the framework. Moreover, adopting multiple cases by targeting Telecentre A and B allows me to

gain confidence in the data as well as produce reliable findings on how telecentres empower rural communities in Malawi (Yin 2014; Heale & Twycross 2018; Gustafsson 2017).

More details of Telecentre A and Telecentre B in terms of their socio-economic needs and the rural community they serve is given under case description in Chapter 5, Section 5.2 and Chapter 6 Section 6.2 respectively. Briefly, Telecentre A is community managed telecentre which is looked after by people within the community. It has staff who come from within the community. The staff and management committee members come from the community representing various stakeholders. The area has limited access to basic facilities such as clean water, electricity and good roads. The Telecentre is one of the three multipurpose telecentres and offers a wide range of services including Internet access; printing; photocopy; book binding; lamination; color printing; library services mainly access to books and reading space; ID design and printing; Airtel money; Kiosk (a tuck shop and soft drinks); computer training and scanning (Njinga 2016; 2017; 2018). This telecentre was chosen for two main reasons. The first one is that it is a community managed model hence meeting the objectives of this study which is to see the effectiveness of telecentres at community level. Secondly, my previous experience with telecentres in Malawi such as visits as well as previous studies (Kapondera & Chigona 2017); and preliminary interviews with MACRA officials on the use of telecentres in Malawi show that it is the most innovative and most used telecentre with an average of 30 users per day hence it could provide insights in relation to my topic: how telecentres empower rural communities.

On the other hand, Telecentre B falls under an entrepreneurship model. Two businesspersons run this. With reference to the types of telecentre models described in Chapter 2, this could be said that it falls under basic telecentres that has numerous phone lines and ICTs such as photocopier, a number of computers with Internet access, a printer, scanner (Jensen & Esterhuyisen 2001). In addition to this equipment, Telecentre B offers training on computer and Internet usage. Telecentre B was chosen because it is one of the oldest telecentres which started operating in 2010 (Chikumba 2010); and is widely used as compared to other telecentres under entrepreneurship model in the country as per the researcher's preliminary visits. Although different, the common thing between these telecentres is that they are both open to the public. In addition, telecentres in the categories of MPC managed and Public institutions have not be chosen because the former also targets the urban poor yet this study

focuses on rural communities; while for the latter, as stated in Table 7, some of its services such as computer training are limited to students and not the general public hence will not be included in the study. In what follows, I describe each of the two selected telecentres.

I do acknowledge that multiple case studies have limitations such as limited resources such as money and time constraints (Gustafsson 2017), but the strengths of multiple case study outweighed its limitations in relation to my study hence its adoption.

4.5. Study Context (Research Site): Malawi

4.5.1. Description of Malawi

This study was conducted in Malawi. Figure 5 shows the Map of Malawi and its neighboring countries. The country has been chosen because it is a good example of a developing country which features in the World Bank list of low-income countries (World Bank Group 2020) and that, just as in many developing countries, telecentres in Malawi are being established to remove digital exclusion whose levels are high in the country as many people do not have access to ICTs (Chigalu 2006; Banda 2015; Kapondera & Hart 2016; Kapondera & Chigona 2018). For example, as of 2014, only 29.1% and 2.6% of the population had access to Internet and computers respectively. There are also differences between urban and rural areas when it comes to ICT access. In 2014, while 36.1% had access to computers, only 13.9% accessed computers in rural areas; and 23.7% accessed Internet in urban areas as compared to only 2.9% in rural areas (MACRA 2015).

Figure 5: Map of Malawi Showing the Regions and the Districts

The high levels of digital exclusion in the country may be due to a myriad of factors. For a fact, Malawi is a poor country. It is considered as a developing country by the United Nations; and is considered as a highly indebted country by the World Bank (Kapondera & Chigona 2018). It has annual Gross Domestic Product per capita of $250 and at least half of its population lives below the poverty line (Rock et al. 2016). Malawi has a population of 17 million people of which only half of the population lives on at least 1 US Dollar a day. More than 83% of the population lives in rural areas (Index Mundi 2019) where there are limited means of transport, lack of clean water, poor ICT infrastructure and poor electricity among others (Isaacs 2007). Due to this, the Government of Malawi has been investing in a number of initiatives to reduce the digital exclusion in the country. Some of the remarkable initiatives are:

- The Malawi Vision 2020 which aimed at achieving socio-economic development by the year 2020 and recognized that ICTs could be essential in achieving the aim (the Government of Malawi 1998 as cited by Banda 2015).
- The Malawi Growth Development Strategy 2006-2011 from which establishment of information centres which provide information access to ICTs emanates (Chigalu 2006).
- Development of Rural Telecommunications Policy which enabled the Malawi Government and telephone network service providers sell basic cellular phones at low costs (Chigalu 2006).

In addition, in 2003, the Malawi Government developed National ICT Policy, which, among others, aims at improving access to modern ICTs in rural and underserved communities through Multipurpose Community Telecentres (Malawi 2003). The establishment of telecentres in Malawi could be attributed to this ICT Policy.

4.5.2. Telecentres in Malawi

The Government of Malawi has been establishing telecentres with funding from international organizations such as the ITU and the World Bank (MACRA 2015; Kapondera & Hart 2016). These telecentres are being established under various projects. According to Banda (2015:19), the most notable models of telecentres in Malawi include "the ICT for Sustainable Rural Development Telecentre Project; Connect a Post Office Telecentre project, Regional Communication Infrastructure Project and Connect a Constituency telecentre." Table 6 briefly describes each of these initiatives or projects. Malawi established its first telecentre in 2007 (Chikumba 2010).

Table 6: Telecentre Projects of Initiatives in Malawi

S/N	Initiative/Project	Aim
1	ICT for Sustainable Rural Development Telecentre Project (ISRDP)	To facilitate access to ICTs in rural areas through multipurpose community telecentres. Implemented by MACRA and Ministry of Education and Civic Education (MACRA 2011 as cited by Banda 2015). Targeting people within the reach of 5 Kilometres (Chigalu 2006; MACRA 2006).
2	Connect a Post Office Telecentre Project	Establishes telecentres in post offices of the rural and remote areas of the country. The telecentres are managed by Malawi Postal Cooperation (MPC) (MACRA 2012 as cited by Banda 2015). They

		also exist in post offices of relatively urban areas.
3	Connect a constituency project	To connect all 196 constituencies in the country. Just as the IRDP, the project aims at being managed by communities (MACRA 2011 as cited by Banda 2015). Preliminary findings show that this is at preliminary stage.
4	Malawi Multi-purpose Community Telecentres Project	To provide access to basic ICTs such as printers and photocopiers and ICT equipment for the disabled such as braille printers. Established by MACRA in conjunction with ITU (Banda 2015).
5	Regional Communication Infrastructure Project (RCIPMW) (PPPC, 2012).	The Malawi Government in conjunction with the private sector is establishing Telecentres under this initiative. The initiative aims at improving ICT infrastructure in public institutions such as schools. Under this initiative, telecentres are established by Malawi Government with support from the World Bank.
6	Universal Access Pilot Project	This aims at improving access to ICTs in rural areas by providing access to Internet and public phones in 10 districts of the country (MACRA 2008 as cited by Banda 2015).

To date, telecentres in Malawi exist in different types or models and are owned and managed by various stakeholders such as schools, entrepreneurs and communities. In this context, a model shall mean the type of telecentre as well as how they are managed. Table 7 summarizes all the telecentres in five models: community managed; MPC managed, entrepreneur managed; public institutions managed and universal access project. Despite the various forms or models, all telecentres aim at curbing digital exclusion to achieve digital inclusion

Table 7: Models of Telecentres in Malawi

Model	Number	Remarks
Community managed	4	Implemented four telecentres but preliminary visits to the sites show that one telecentre was converted into an entrepreneur model and one has been closed. These are managed by communities through a management committee constituting different stakeholders within the community.
MPC managed	15	These are telecentres managed by post offices. They are located within post offices in various districts in the country. These could be said to target the urban poor as they are also available in relatively towns.
RCIPMW (public institutions such as schools and colleges	17	Public institutions such as schools and colleges manage these. Although they are sometimes open to the public, my preliminary visits to one of the telecentres under this model indicated that some services such as computer training are only limited to students.
Entrepreneurial managed	7	Entrepreneurs manage these. They are open to the public.

Universal access project	10	These have two components: providing Internet access; and providing public phones in rural areas.

Source: Adapted from Banda (2015)

As stated in Section 4.4.3.3, I targeted two telecentres: Telecentre A and Telecentre B which fall under community managed and entrepreneurial managed models respectively. The section that follows discusses how I gained access into the field.

4.6. Gaining Access into the Field

One of the things one must consider when it comes to fieldwork is gaining access. This is more challenging when one is conducting observation (Lee 2009). Dean et al. (1967) as cited by Lee (2009) suggest that the authorities should be the first to be contacted to facilitate or enable easy access. I had been in contact with the managers of both telecentres for over two years before the fieldwork commenced. This had been through visiting the telecentres as well as writing emails, phone calls and WhatsApp conversations. For example, I had been to each of these telecentres at least twice. Through all these means of contact, I was able to negotiate with telecentre managers to conduct my study at their telecentres. The contacts had also helped me to have preliminary information on how telecentres are empowering communities as briefly discussed in the sections above. A few weeks before fieldwork my contacts with the manager of Telecentre A through a phone call and WhatsApp conversations, I had been assured of access to individuals for observation. Through this conversation, the manager was able to ask some of the telecentre users who would be observed for their consent to which they responded positively. In addition, I had been in contact with one of government officials responsible for establishing telecentres in the country.

4.7. Data Collection Methods

Methods are techniques for collecting data. For qualitative research, examples of data collection methods include observation, diaries and interviews (King & Horrock 2010). The study employed three main data collection methods: focus groups, individual interviews and observation. My main data collection method was individual interviews while focus groups and observation were used as supplementary methods. The following paragraphs describe how each of these methods was employed. In addition, the following paragraphs briefly

describes each of these methods and explain the justification for their inclusion in the study and how they were used.

4.7.1. Focus Groups

A focus group, as defined by Anderson (1990:241) is "a group comprised of individuals with certain characteristics who focus discussions on a given issue or topic." Focus groups are formed, organised, guided and their results are recorded by a researcher. The researcher in this context is usually referred to as a moderator or facilitator (Gill et al. 2008). Focus groups aim at using conversations to gather people's feelings and perceptions towards a specific subject (Boddy 2005). Focus groups may also be used to explore a topic; understand the experiences of people on a specific issue; enable minority groups such as women and the poor who do not have a chance to speak to have that chance; and investigate on sensitive topics such as HIV/AIDS (Dilshad & Latif 2013). Since they involve one on one interaction between researcher and participants, focus groups are group interviews (Molye 2006).

Focus groups can be used as a standalone method in which the aim is to explore participants' beliefs, opinions and attitudes. Furthermore, focus groups may be used when the researcher does not have information about the subjects. They can also be used as a supplement especially using its data to validate or clarify quantitative; and as a multi-method within qualitative (Gill et al. 2008; Dilshad & Latif 2013).

When conducting focus groups, there are issues to be considered. One of the things to consider is the number of groups and number of participants in each group. On the number of groups, three to five groups are enough though saturation is the key (Anderson 1990; Cappellini 2018). As for the size of the group, it is recommended to have six to twelve participants in each group. Smaller than 6 is unlikely to provide the researcher with adequate information; while a group composing of more than 12 members may be difficult to manage such as giving everyone opportunity to participate (Gill et al. 2008). In addition, focus groups ought to be homogenous by having people of the same characteristics based on factors of gender, age and educational backgrounds. When different people are put together, some may be unable to feel 'free' in the discussion (Adams & Cox 2008; Leung & Savithiri 2009). Finally, focus groups ought to have a moderator responsible for asking questions and

controlling the group; and an assistant moderator whose responsibilities, among others, include taking notes and observing the group (Krueger 2002; Cappellini 2018).

Just as any other data collection method, focus groups have both advantages and disadvantages. One of the advantages of focus groups is that they generate wide range of data because there is combined effort when compared to one-to-one interview (Stokes & Bergin 2006). Focus groups also help in collecting vast amount of data within a short period of time (Gorman & Clayton 2005). With focus groups, people interact, which, among others, helps researcher to explore many issues; enable group participants to raise more issues as compared to individual interviews; and obtain views that individuals may forget during individual interviews (Molye 2006; Grunfield 2011). In addition, focus groups provide natural environment as compared to individual interviews because during focus groups, people are influenced by others which is in line with real life situations. They also help researchers to get information on issues not anticipated (Dilshad & Latif 2013). Some of the disadvantages of focus groups include: being difficult to organise and manage such as being difficult to get the right people to partake in the study and to ensure that all participants contribute (Gill et al. 2008); and some members conforming to whatever others say even when they do not agree with them (Dilshad & Latif 2013). Furthermore, focus groups sometimes compromise ethics because some group members may not be able to maintain confidentiality (Research Ethics Guidebook 2015). While I was aware of the disadvantages of focus groups, I still employed the method in my study because there was an optimal balance between the advantages and disadvantages of the method.

I used focus groups as the first means of interaction with telecentre users. This helped me to explore the topic and gather information about the subjects. Focus groups at this stage helped me identify the subjects for individual interviews. The purpose of focus group in my study was to get understanding of how users see their community; and to have a collective view of the role of telecentres in empowering communities using users as mediators; and to identify users for individual interviews. I also initially planned to conduct separate focus groups with indirect beneficiaries. However, it was difficult to recruit indirect beneficiaries as they were scattered unlike users.

Although several scholars encourage homogeneous groups based on the reasons outlined above, other scholars (such as Anderson 1990; Dilshad & Latif 2013) argue that heterogeneous groups are better. They further suggest that the decision on whether to have homogeneous or heterogeneous groups should be based on the researcher's view on which way would be best to achieve the research objective. Gill et al. (2008) echo this by arguing that there is no best way of group composition and emphasises that the researcher should always consider how group mix may affect data before formulation of the groups. In my study, I had focus groups, which are largely, heterogeneous. I only had homogenous groups based on gender considering that in Malawian societies when mixed with men, women do not express freely. However, other factors such as education, age and income levels for example were not considered in my study when formulating focus groups. My main aim of using focus groups was to identify the participants for the interviews as already alluded to. At the same time, I only had two focus groups for each telecentre: one with females; and the other one for males. At Telecentre A, each focus group had 7 participants; while at Telecentre B, each focus group had 6 participants. Therefore, having homogeneous groups would entail that I would leave out other groups of individuals in the communities.

The participants for focus groups were organised by the telecentre staff at both telecentres based on the criteria given to them. The criteria given to the telecentre managers are given in Table 12. The list of the criteria was translated in Chichewa and the managers were given both versions. However, since I explained the concept of empowerment to them, the telecentre managers were encouraged not to stick to the criteria in Table 12 but rather also add based on their understanding of empowerment concept. After choosing the participants, the managers discussed with me why each had been included. The participants were called (phone calls) at least two days before the day for the discussions. The participants represented various groups such as farmers, businesspersons, workers, pastor and students.

All the focus groups took place at the telecentres. The focus groups with females were done in the morning and vice versa. At both telecentres, focus groups with females started later than the scheduled time. At Telecentre A, the focus group started at 11am instead of 9am; while at Telecentre B, the discussions started at 11am instead of the agreed 10am. Men were almost on time.

I was the moderator or facilitator who was asking questions and controlling the group. Some of the topics discussed with users are included in Appendix C; I used a recorder to record the focus group discussions. I was also taking notes throughout the discussions. At each centre, one of the telecentre staff was asked to be an assistant moderator. They helped in taking notes in case I would miss out on something. They were also asked to prompt. After each focus group, we briefly met to discuss especially on the subjects for individual interviews. The focus groups lasted between 1 hour and 1 hour and 20 minutes.

4.7.2. Interviews

An interview in research refers to "conversation between interviewer and respondent with the purpose of eliciting certain information from the respondent" (Bell 1993:91). The information obtained through interviews could help in understanding people's feelings, thoughts, beliefs and behaviour (Stuckey 2013). An interview is a common method for collecting data for researchers because an interview can be applied to any research of any epistemological foundations depending on the structure of the interview. For example, positivists who prefer quantitative data use interviews that help them collect numerical data/classes for assessing attitudes of people towards services of a particular entity. On the other hand, qualitative researchers apply interviews which solicit non-numerical data and subjective understanding and meaning of the particular group of people on the problem (such as program and situation) being studied (Boyce & Neale 2006; Cassell 2015). As such, there are different types of interviews mainly: structured, semi-structured and unstructured interviews.

4.7.2.1. Structured Interview

Structured interview also known as standardised interview, is a type of interview that is administered by the interviewer who gives exactly the same questions to the respondents. When asking the questions, the interviewer follows the same order for all interviews. The interviewees respond to the questions by choosing from the fixed range of answers devised interviewers (Bryman & Bell 2015). In echoing this, Stuckey (2013) likens structured interview to a job interview whereby the panel asks all potential employees the same set of questions ensuring no variations. The aim of the structured interview is to aggregate data from the respondents as well as generalise to the whole population from which the sample was selected (MacLaughlin 2003). The interview in this case may be associated with

questionnaires except that structured interview is not self-administered like a questionnaire but rather, it is administered orally by the researcher (Zhang & Wildemuth 2016). As such, this is commonly used in survey and quantitative research thereby associated with the positivists. Structured interview is useful when the researcher knows a lot about the topic (Stuckey 2013). On the other hand, they do not allow participants to respond in their own words thereby lack depth (Gill et al. 2008).

Structured interviews have both advantages and disadvantages. One of the advantages is that the results from structured interviews lead to reliability and validity because the interviews stick to the same questions and order as well as answers. One of the limitations of structured interviews is that it reflects the researcher's point of view rather than the view of the respondents. The other disadvantage is that since it involves close-ended questions, the results are not rich and detailed (Bryman & Bell 2015). It also does not allow interviewer to add questions (Crawford 1997).

4.7.2.2. Unstructured Interviews

The unstructured interview, also known as narrative interview (Stuckey 2013), is a form of interview in which both the question and answers are not predetermined (Minichiello et al. 1990 as cited by Zhang & Wildemuth 2016). Although the interviewer may have a list of topics in a form of a guide, the interview is usually informal and the phrasing as well as sequencing varies from one interview to the other. This type of interviews aims at allowing participants to tell their stories in relation to the topic under study (MacLaughlin 2003; Stuckey 2013). Stuckey (*ibid*) adds that this is used when the researcher has little knowledge on the topic. Mostly, this interview is employed as preliminary step in research with an aim of generating ideas or hypothesis (Crawford 1997). Therefore, it is one of the qualitative research methods. The main advantage of this type of interview is that interviewee guides the interview and mostly reveal information not anticipated. On the other hand, data collection is time consuming (Gill et al. 2008); and data analysis is difficult to do as it yields wide themes (Stuckey 2013).

4.7.2.3. Semi-structured Interviews

This form of interview involves an interview schedule which the interviewer uses in asking respondents. By definition, a semi-structured interview is a type of interview in which questions are predetermined but can be modified in the course of the interview based on the interview's responses and what the interviewer perceives to be the most appropriate to gain deep understanding of the problem under study (Van Teijlingen 2014; Steber 2017). The interview schedule has "more or less open ended questions..." (Flick 1998:94 as cited by MacLaughlin 2003). The questions in the semi-structured interviews aim at getting particular information such as topic or theory (MacLaughlin 2003). Unlike the structured interview which follows the same order for questioning all respondents, the interviewer in adopting this type of interview can vary the sequence of questioning (Bryman & Bell 2015) and the interviewee responses determine "the way in which the interview is directed" (Stuckey 2013:57). In addition, the interviewer does not stick to the questions in the schedule but can ask further questions based on the interviews' responses. Unlike structured interviews which have predetermined answers, semi-structured interviews allow interviewees to respond to questions based on their opinions or experiences in their own words (Bryman & Bell 2015). This type of interview is called semi-structured interview "because discussions may diverge from the interview guide, which can be more interesting than the initial question that is asked" (Stuckey 2013:58).

Semi-structured interviews can be used when one knows what to talk about; and when one is to carry out multiple case studies so that they have some structure in order to compare; and when the interview will be done by more than one person as an interviewer (Bryman & Bell 2015). One of the advantages of semi-structured interviews is that they lead to flexibility as the researcher can ask more questions based on the responses of the interviewees. They also help in getting detailed information as the interviewees could expand their responses which, among others, is achieved through probing (MacLaughlin 2003; Opdenakker 2006). The flexibility through probing and follow-ups also helps in getting information that the researcher did not anticipate in the beginning (Gill et al. 2008). Furthermore, semi-structured interviews help in obtaining an insider's view or account which aids in understanding experiences within a particular context. They also helps the interviewer prepare ahead of time while, at the same time, gives interviewees freedom to express their views in their own words (Stuckey 2013); and guide interviewees on what to talk about (Gill et al. 2008).

4.7.2.4 Type of Interview for this Study: Semi-structured Interview

This study adopted the semi-structured interviews with 48 participants comprising 22 telecentre users; 23 indirect beneficiaries that included telecentre users' families, colleagues and friends; two telecentre managers; and one MACRA staff. Some of the users interviewed were selected from focus groups. After conducting the FGDs, some participants who had an impact on community empowerment were identified based on their responses on questions to do how they empower their community asked during FGDs.

One of the reasons of adopting semi-structured interview is that empowerment is subjective. Therefore, semi-structured interviews being qualitative interview helped in generating subjective views on how telecentres empower rural communities. Furthermore, I used semi-structured interviews to obtain an insider's view or account which aids in understanding experiences on how telecentres empower communities in the context of rural communities. In other words, the aim of this research is to understand the experience in the context of rural communities and the insider's view most appropriate. Therefore, instead of using unstructured interviews, for example, which would require me going with predetermined responses, I got responses from the people who experience it hence using those people who are living there.

In addition, I aimed at getting detailed and in-depth understanding of how telecentres empower rural communities using users as mediators in developing countries. Therefore, semi-structured interview was most appropriate as it helped respondents in answering questions in detail and as already stated above, gave room for probes. For example, one of the participants indicated that they empower the community by starting up clubs for children. I further asked for clarification on what these clubs were about, and the respondent explained that these were to do with teaching children schoolwork after they knock off so that they should not be engaging in bad behaviours.

Furthermore, I collected data from multiple cases; and that semi-structured interviews were useful in multiple case studies in order to compare. In addition, the Research Framework developed in Chapter 3 was there to guide the focus of my study. This implies that the concepts derived from the Research Framework in the study guided me on the topics to focus

on. Therefore, semi-structured interview helped me devise interview schedule based on such concepts hence its adoption.

Particularly, in this study, I employed theoretical semi-structured interviews. Theoretical semi-structured interviews are interviews in which thematically formulated open-ended questions, are used to answer a particular research question and the questions are formulated based on a particular theory or theories on the topic (Cassell 2015). The theory plays great role in the formulation of questions and that the schedule contains questions thematically organised using concepts in the theoretical framework being employed in a particular study. The interview schedule in this study had guide questions organised based on the theory or framework developed in the previous chapter. Furthermore, the theoretical semi-structured interview was used because it allows theory generation using inductive approach, which is the aim of the study hence its adoption. Some examples of questions that I asked users include: i) "*how has the use of telecentre helped you in influencing things in other people's live e.g. friends as well as the community?"* ii.) *"What are some of the things that you have done to the community after using the telecentre?"* However, during data collection, I was not limited to the framework. Throughout the study, I remained open to what would come out through the fieldwork**.** Appendix A outlines some of the questions that I asked users, while Appendix B outlines some of the questions that I asked telecentre managers; and Appendix outlines some of the questions I asked indirect beneficiaries. The informed consent form is provided in Appendix E.

Cassell (2015) further suggests that one can use a combination of types of interviews. Therefore, although the interview was mainly guided by theoretical semi-structured interviews, I also combined this with the most significant change technique. The most significant change technique, based on the categories of interviews given by Cassell (*ibid*), can be associated with event based semi-structured interview which requires interviewees to provide their experiences on particular event by using critical incident technique for example. This study employed the 'Most Significant Change Technique' (Lennie 2011) to some purposively chosen questions during the interviews. For example, I asked one of the empowered telecentre users to indicate the most significant change on their participation in activities that aimed at bringing social or political change in their communities after using the telecentres. Through this, the user was able to recall what happened.

I devised all interview schedules in English. The interviews with telecentre staff and MACRA staff were conducted in English. On the other hand, a language expert from Mzuzu University translated the interview schedules for empowered users and indirect beneficiaries into local language (Chichewa). The interviews with these two groups were mainly conducted in Chichewa except for a few participants who preferred English. The interviews with telecentre users took place at various venues. In both telecentres, most users were asked to come to the telecentre for interviews. I made sure I booked an appointment at least a day before. In some cases, I interviewed users in their homes and their workplaces. For example, I drove from Telecentre B to Mulanje, about 200 Kilometres away from the site just to meet Telecentre B User Number (TBUN) 13 (TBUN13). Similarly, indirect beneficiaries were interviewed at either telecentre, homes or workplaces. The interviews with users ranged from 30 minutes to 1 hour each. On the other hand, interviews with indirect beneficiaries ranged from 18 to 30 minutes each. The questions to indirect beneficiaries depended on what they do. However, general questions focused on: their views on the role of telecentres, how they benefit from the telecentre; who they benefit from; and how the telecentre has benefited the community. All the interviews were audio recorded.

4.7.3. Observation

On top of interviews and focus groups, this study applied observation as a data collection method.

4.7.3.1. Overview of Observation

The term observation refers to "the systematic description of events, behaviours, and artifacts in the social setting chosen for study" (Marshall & Rosmann 1989:79 as cited by Kawulich 2005:n.p.). It is about the researcher collecting data by observing within a specific research context (Bryant n.d.). Just as with interviews, observation can be structured, semi-structured and unstructured. Structured observation involves observing particular behaviour which are counted thereafter as well as generalising. This is more applicable to the positivists who would want to collect objective data (Patrick n.d.). Semi-structured observation involves having a list of what to observe but not sticking to that list; while unstructured does not involve development of a template (Bryant n.d.). Bailey (1996) recommends researchers employing observation to pay attention to three things: physical surrounding; members of the community; their behaviour. Based on the aim of this study, the attention was paid to two

things: the community members and their behaviour. For example, I was observing how community members empowered by telecentres interact with other community members who could be their families and friends; as well as the community activities in which they engage in. Qualitative researchers can observe by either participating or immersing in the research situation (Patrick n.d.). Observation is essential when one wants to study a phenomenon that is unexplored and explain the people's behaviour in a specific context (Robert Wood Johnson Foundation 2008).

In general, observation allows observation of naturally occurring thereby helping the researcher to observe the behaviour directly as it occurs rather than solely depending on responses obtained through other methods such as interviews or questionnaires (Fox 1998; Connaway & Powell 2010). Observation also helps to observe activities that participants may not be able to share as well as confirm the events they will have described during the interviews (Marshall & Rossman 1995 as cited by Kawulich 2005; Walshe et al. 2011). Moreover, observation is essential when one wants to understand the roles, behaviour and action among others (Walshe et al. 2011). This, among others, enhances quality of data collection and interpretation of data (DeWalt & DeWalt 2002). Moreover, observation is essential when one wants to understand the roles, behaviour and action among others (Walshe et al. 2011). Through field notes, observation helps to capture information pertaining to research as well as cultural and structural aspects of the study e.g. organisation or community (Corley & Gioia 2004). Furthermore, observation helps in developing theory (Hammersley & Atkinson 1989 as cited by Fox 1998). One of the major limitations of observation is that it involves immersion in different cultures and may end up not being granted access (Schensul et al. 1999).

4.7.3.2. The Relevance of Observation for the Study

I conducted observation with two users at each centre. In addition, I conducted observation with two indirect beneficiaries at Telecentre B. In this study, observing users allowed me observe how users were empowering communities. It also enabled me to learn about the activities through which telecentre users empower communities by observing participants' activities. For example, one of the users I observed at Telecentre B (TBUN8) empowers community members through debate clubs. He uses the telecentre to access information on

possible funders of projects and for emails. Through that, he has been able to secure funding. I observed his activities and realised that he empowers people through giving advice on how they can run their clubs. I spent 5 (five) weeks at each site. While spending time with the participants, my focus was to observe the participants without me being involved or taking part in their activities.

My initial plan was to observe users only. However, when I was in the field, I realised it was also important to observe some of the indirect beneficiaries depending on the nature of the work they were doing. I, therefore, observed two indirect beneficiaries at Telecentre B. Both were ex-convicts who had benefited from Prison Fellowship Malawi. They were equipped with skills and equipment to start up their businesses. I spent two at least hours each day for two days with each of these participants. More details of the participants are given in Chapter 5 and Chapter 6. The observation was done at their workplaces.

The way I was observing the activities depended on the type of activities that the participants engaged in. For example, if someone engaged in a business, it was useful to spend some time at their business service centre. Three of the six participants are engaged in business hence I spent time at their business centres. The idea was to appreciate what they actually engage in which had started after obtaining skills from the telecentre in case of users at Telecentre; and the activities that an indirect beneficiary engaged in after participating in a programme that started due to the use of the telecentre. These included one user and two indirect beneficiaries.

Among others, observing activities of users and interaction with the community members (family and friends) partly helped me in selecting the indirect beneficiaries of the telecentres for interviews. For example, at Telecentre A, when I was observing Telecentre A User Number (TAAUN) 17 (TAUN17), identified an indirect beneficiary whom I interviewed some days later Telecentre A Indirect Beneficiary (TAIDBN) 5 (TADIBN5). In addition, I adopted observation because the interactions that users have with the community revealed some form of empowerment and possibly the mechanism of empowerment. This was true at Telecentre B where one of the users I observed was empowering indirect beneficiaries by giving them advice on how to form and run a club that aimed at sensitizing people on the dangers of killing albinos. In addition, interviews helped allow participants say what they do

while observation enabled me to directly see what the participants have claimed to do during interviews (Walshe et al. 2011) hence the use of both interviews and observations. I also carried out observation in this study because my topic, how telecentre users empower communities is unexplored. Therefore, this study aimed at exploring this phenomenon in the rural areas.

Qualitative researchers can observe by either participating or immersing in the research situation (Patrick n.d.). Although, I did not participate in the activities of the participants, I immersed myself in the research situation whereby I was learning how empowered users empower communities. For example, I was observing how users interact with their families and friends because observation is essential when one wants to understand the roles, behaviour and action among others (Walshe et al. 2011). Where necessary, observation helped me in formulating follow up interviews for users and indirect beneficiaries. These interviews were generally informal. For example, when I visited TAUN17's cybercafé, I noted that one of the customers' phone was connected to the PC and Internet. I asked him some questions I had not prepared in advance such as what the problem was with the phone; and if the skills he was applying in fixing the phone were also learnt from the telecentre. Moreover, the social world should be studied in "its natural state, undisturbed by the researcher" (Hammersley & Atkinson 1989:6-7 as cited by Fox 1998:4) which implies that observation is an effective data collection in this study.

However, I did not start observation immediately upon arrival at the site. The observation was done after the interviews as this helped the community members to familiarise themselves with the researcher and develop rapport. Although immersing myself in the targeted contexts may be an anticipated challenge for observation, I am a Malawian who also grew up in rural areas and understand how people in rural areas interact. Therefore, I was in a good position to be accepted in the settings and to try view the events through the eyes of the people that I was studying.

In this study, I applied semi-structured observation in which I had a template of things I needed to observe just as a guide. This listed some of the things to focus on such as: the type of activities in which they engage in as indicated in Appendix F.

During the fieldwork, field notes were written down at the end of each day. Furthermore, when something interesting was seen or heard, I wrote it down the very same moment so as not to forget it. Some of the field notes were about the observer (such as emotions and fears) and the context. I also made sure that I conducted post hoc reflections every day of the observation (Fox 1998:13). I had daily logs to record what I observed. I was writing at the end of each day everything that I had observed that would be of interest to the study which, could be later used for data analysis.

4.8. Summary of Data Collection at Two Cases

Although the study employed same data collection methods at both telecentres, the actual collection process differed to extent in terms of phases as described in the following sections:

4.8.1. Data Collection at Telecentre A

Data collection at Telecentre A was done in three different visits. The first visit took place in the third week of March 2019. During this visit, I conducted interviews with the Telecentre Manager and presented him with the criteria for choosing users after explaining the concept of empowerment to him. This took place in a day and I later left for Telecentre B.

The second visit took place between May and June 2019. During this time, I was at the centre for about four weeks. Firstly, I conducted FGDs. There were two FGDs: one with females and another one with males. Each focus group discussion consisted of 7 participants. The FGDs were conducted in one day at the telecentre starting with the females in the morning to give them ample time to prepare lunch at home as women are expected to while looking for food is considered men's role (Mkandawire & Hendriks 2019). Secondly, I conducted interviews with some of the users who had participated in FGDs. However, some users who had not participated in FGDs were interviewed. Twelve users were interviewed of which 8 had participated in the FGDs. There were 8 males and 4 females. This was followed by observation of some of the users. I only observed two users. One of the users has a cybercafé where I went for three different days for at least two hours. The other one was teaching customers in the telecentre as an intern. I observed her for two days. I then conducted individual interviews with indirect beneficiaries. The observation and interviews with indirect beneficiaries were done concurrently. The interviews with users and indirect beneficiaries

took place at various venues which included at the telecentre, their homes or at their workplace whichever was convenient place for them. I made sure I booked appointment with the participants at least a day before.

My data collection in May at this site coincided with 2019 Malawi general elections. Therefore, for some days, the appointments had to be cancelled because some participants were busy following the elections results. After almost four weeks, I left the site for my place, Mzuzu which is about 231 Kilometres away from the site so that I could transcribe some data before conducting more interviews. I went back to the telecentre the second week of August for five days. During this period, I interviewed 10 participants who included two users and 8 indirect beneficiaries. Therefore, in total, at this research site, I interviewed 12 users and 14 indirect beneficiaries and observed two users. Table 8 indicates the breakdown of the number of the participants for each data collection method especially for FGDs and interviews. The ones observed had participated in either of these so already covered. For example, one user participated in FGDs, and was later interviewed and observed. In total, I had 32 participants.

Table 8: Number of Participants Classified by Research Method and Relationship with Telecentre A

Method(s)	Users	Indirect beneficiaries	Total participants
Focus groups only	6	-	6
Interviews only	4	14	18
Observation only			
Focus groups and interviews	8		8
Total	18	14	32

Fieldwork at this centre was done at a time that locals were harvesting their crops. On the first day of my third visit to the telecentre, after interviewing one of the users who had taken part in the FGDs, I decided to drop her off at her village as I was also supposed to meet some of the indirect beneficiaries who were having a village bank meeting in that area. The village is about 5 kilometres from the telecentre where the interview was taking place. It is a bumpy road and full of dust. After interviewing the three indirect beneficiaries, all ladies, the user and her sisters offered me 50 kgs of maize as a gift. It is common in Malawi that whenever you visit someone's place, you do not leave empty-handed. The picture in Figure 6 shows

me, the user who had given me a bag of maize and the indirect beneficiaries that I interviewed of which two are related to the user.

Figure 6: The Researcher (in Pink Blouse) Posing with Some of the Participants Who Gave Her a Bag of Maize

4.8.2. Data Collection at Telecentre B

I collected data at this telecentre in a single visit. I was at the site for about 5 weeks from mid-March to end of April 2019. Just as with Telecentre A, the data collection was in phases. The first phase was to conduct interviews with the Telecentre Manager. I also presented the criteria for choosing the participants to the manager. I then conducted two FGDs: one with males; and another with females, each having six participants. This was followed by individual interviews with 10 users of which 6 were selected from the FGDs and 4 users had not participated in the FGDs bust still relevant in providing information on the topic under study. I later conducted observations with 2 users in which I was observing their activities without necessarily participating in their activities. Thereafter, I conducted interviews with 9 indirect beneficiaries and observation on 2 indirect beneficiaries. I had not planned to observe indirect beneficiaries but their activities that they were engaging in led me to. The phases after focus groups were done concurrently and not sequentially. For example, I conducted

individual interviews with some indirect beneficiaries before I finished interviewing all users. Table 9 provides breakdown of the number of participants for each data collection method with reference to FGDs and interviews. The ones who were observed had already taken part in at least one of these data collection methods hence already covered. I had 25 participants in total.

Table 9: Number of Participants Classified by Research Method and Relationship with Telecentre B

	Users	**Indirect beneficiaries**	**Total participants**
Focus groups and interviews	7	-	7
Focus groups only	5	-	5
Interviews only	4	9	13
Total	16	9	25

The FDGs were held at the telecentre starting with females in the morning and males in the afternoon. However, the venues for the interviews varied from one participant to the other. For example, some were conducted at respondent's workplaces, homes, at the telecentre etc. sometimes I could travel long distance just to interview participants. For example, I had to travel 200 Kilometres away from the site just to meet TBUN13. I had a breakdown on my way back and had to spend two nights in some place about 120 Kilometres from the site to have the car fixed.

To sum up, I collected data mainly in six phases in this study as summarised in Table 10.

Table 10: Summary of the Data Collection Phases in this Study at Telecentre A & B

Phase No	**Activities / target group**	**Remarks/Aim**
First phase	Interviews with telecentre managers and one government official.	To get an overview background information on telecentres.
Second phase	Conducting focus groups with telecentre users.	To collect collective voice. This phase helped me gain insights into the topic as well as helped me identify telecentre users for individual interviews.
Third phase	Conducting individual semi-structured in-depth interviews with telecentre users.	Some of these had participated in the focus groups while others had not. To get detailed views on how users empower their communities.
Fourth phase	Conducting observation with	It helped appreciate the activities users engage in

	selected users.	after being empowered by the telecentre. It also helped identify some indirect beneficiaries for interviews.
Fifth phase	I conducted individual semi-structured interviews with indirect beneficiaries.	These included family members, colleagues and friends of users. To get their views on how they were being empowered by users.
Sixth phase	Observations with selected indirect beneficiaries.	To appreciate the activities users engaged in after being empowered by telecentre users.

Some of these phases were done concurrently. For example, I started conducting interviews with indirect beneficiaries before I finished interviewing all users; and that I could interview indirect beneficiaries and do observation concurrently.

4.9. Target Groups for the Study

This study mainly targeted telecentre users who had been empowered by the use of telecentres and, consequently, have empowered or are empowering their communities. The intrapersonal and interactional aspects of empowered individual dimension of the framework proposed in the Chapter 3 were used to identify users who have been empowered. Intrapersonal empowerment is concerned with how a person thinks about themselves while interactional empowerment is concerned with a person's awareness of the forces shaping their surrounding environment (Zimmerman 1995; 2000; Aji et al. 2010). Table 12 outlines some of the criteria for choosing empowered telecentre users. The empowered users, were, among others, who possess one or a combination of the following criteria/characteristics described in the table. However, since the framework does not aim to be deterministic, I allowed fieldwork to help me in determining the empowered users. In identifying the empowered users, my first point of contact was the telecentre managers to whom I explained the concept of empowerment, presented the criteria in Table 12 to the managers and asked them to help identify the users based on the criteria. The telecentre managers are essential in this process because they know the people in the community, have stayed with them hence are in a better position in the activity. Therefore, as already alluded to, I was not constrained to the described criteria in Table 12 when choosing empowered users. In addition, the users chosen were those who met at least one criterion.

The study also targeted telecentre managers to get their views on how telecentre empowered users empower rural communities; and how to help in choosing empowered users; and key informants especially government officials to get their view on the topic at national level. As stated in Chapter 3 (for example, refer to Table 5), users may empower communities by empowering communities at large, families and friends. Therefore, my study also targeted this category of participants to get their views on how they have been empowered. Table 11 outlines the role of these four target groups. It also indicates the data collection methods in which the target groups participated.

Table 11: Study Participants (Target Groups)

Target group	**Description (role of the group)**	**Data collection methods to participate in**
Telecentre users	This is the main target of the study. The study mainly targeted the telecentre users who have been empowered by the use of telecentres and who consequently empower their communities. Intrapersonal and interactional aspects of individual empowerment dimension of the research framework were used to determine empowered users. Examples are given in Table 12. For example, an empowered user is someone who is having impact by starting up a cybercafé business after attending computer training at the centre. These users were asked how they are empowering their communities and the mechanisms that enhance the community empowerment.	Focus groups, individual interviews and observation
Telecentre managers	These people are responsible for running and the management of the telecentres. These gave their views on how telecentre empowered users empower rural communities in the communities that are served by the telecentres that they are managing. They were also asked about their views on what influences users to empower their communities (please refer to Appendix B for some of the questions for managers). Telecentre managers were also asked to help in identifying users to be participants.	Interviews
Government officials	These are responsible for the implementation of telecentres. This study aimed at getting their views on how telecentres are empowering communities at national level. In addition, the government officials were asked about their vision and plans in terms of establishing telecentres.	Interviews
Family, friends and colleagues of users	These are people that users interact with. Since the aim is to understand how the users empowered by telecentres empower rural communities. In this context, the community could be the community in general, the friends, families or colleagues of the users. In this case, these people were asked to get their views on how they are empowered by users.	Interviews and observation

Table 12: Criteria for Choosing Empowered Users

Criteria	Description/examples
Impact	Someone who influences the outcomes in the community. This could be someone who has started a business as a result of participating in telecentre. People who have formed organisations which aim at changing the lives of the community Someone who has ever been involved in political activities of the community with an aim of bringing positive political change in the community.
Meaningfulness	This could be someone who got a job after participating in the telecentre services such as computer training. It could also be someone who furthered studies after acquiring computer training in the study thereby considering the training to be meaningful and helping them achieve their goals.
Increased confidence and self-esteem	This could be someone who is able to do things with confidence that they would not do previously such as speaking in public. Could also be associated with users being able to teach others on how to use computers after they had been empowered by the telecentre.
Improved decision-making skills	Someone whose decision-making skills have improved due to the use of the telecentre such that has made some decisions.
Improved problem-solving skills	Someone who is able to critically solve personal and problems after using the telecentres. Someone whom after using the telecentre services becomes aware of problems or risks facing their community and being determined to stay aware from them.
Critical awareness	Someone who is critically aware of resources and social services in the community after using the telecentres.

For every user, there would be family, friends, colleagues and communities at large that might have been empowered by the particular users. Figure 7 shows a diagram that depicts this. The figure shows that development partners such as ITU provide support funding to the government to establish telecentres. When telecentres are established, managers are at the centre for their management. Through the services provided in the telecentre, people use the telecentres. The ones using the telecentres are direct beneficiaries. These direct beneficiaries can have other indirect beneficiaries within the community. These could be the immediate community such as friends, families and workplace and beyond or community at large. During data collection, I was interested in the immediate community as well as the potential collective level empowerment.

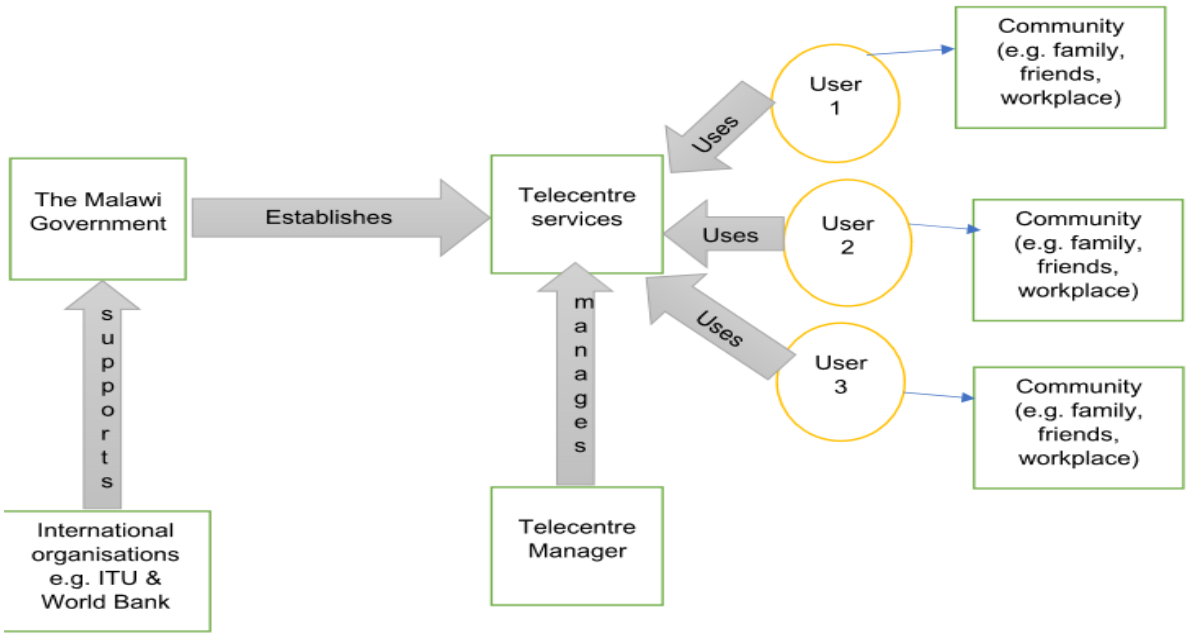

Figure 7: Telecentre Overview in Malawian Context

Data collection revealed that most of the immediate indirect beneficiaries were connected to users by either being friends, neighbours, relatives or colleagues of users. Table 13 and Table 14 depict this scenario for Telecentre A and Telecentre B respectively. The tables show the indirect beneficiaries, who they benefited from and the relationship with user(s) that they benefited from.

Table 13: The Relationship Between Telecentre's Indirect Beneficiaries and Users

Indirect Beneficiary Number	**Who Indirect Beneficiaries Benefited From**	**Indirect Beneficiary's Relationship with User(s) That They Benefited From**
TAIDBN1	TAUN17	Friend
TAIDBN2	TAUN17	Friend
TAIDBN3	TAUN5	Friend, neighbour and go to the same church
TAIDBN4	TAUN2	Sister
TAIDBN5	TAUN17	User for TAUN17's cybercafé
TAIDBN6	TAUN11	Friend
TAIDBN7	TAUN10	Friend and relative
TAIDBN8	TAUN10	Friend
TAIDBN9	TAUN6	Relative
TAIDBN10	TAUN6	Relative
TAIDBN11	TAUN6	Neighbour
TAIDBN12	TAUN13	Friend and colleague
TAIDBN13	TAUN2	Father
TAIDBN14	TAUN10	Friend and colleague

Table 14: The Relationship Between Telecentre Indirect Beneficiaries and the Users for Telecentre B

Indirect Beneficiary Number	Who/where they benefited from	Indirect beneficiary's relationship with user(s) they benefited from
TBIDBN1	TBUN8	One of the members for a club that User Number 8 was helping
TBIDBN2	TBUN16	Brother
TBIDBN3	TBUN8	One of the members for a club that User Number 8 was helping
TBIDBN4	TBUN14	One of the users of stationery shop where he works
TBIDBN5	TBN13	Sister
TBIDBN6	TBUN11 (Interfaith Non-Governmental Organisation (NGO)	One of the beneficiaries of Interfaith NGO
TBIDBN7	TBUN11 (Interfaith NGO)	One of the beneficiaries of Interfaith NGO
TBIDBN8	Prison Fellowship (User 15)	One of Prison Fellowship beneficiaries
TBIDBN9	Prison Fellowship (User 15)	One of Prison Fellowship beneficiaries

NB: Interfaith NGO is a charity organisation that focuses on helping needy people such as by paying school fees and building houses for the elderly

I used the theory of saturation to determine when to stop collecting data. The targeted groups were selected purposively based on the subject under study. This ensured that I gained detailed insights on the topic. In addition, snowball sampling technique was used. For example, the individuals empowered by telecentres who have also contributed to the empowerment of the community were able to refer me to the other individuals who are in similar category to understand how the have empowered their communities. Although the use of these non-probability sampling techniques would not allow for generalization of findings, it enabled me to obtain deep insights into the topic under study because it allowed choosing participants who are knowledgeable on the topic which is the main interest of the study. Moreover, interpretive studies focus on meaning and not measuring which makes non-probability sampling techniques applicable (Osman & Tanner 2017) hence I selected my study participants using non-probability techniques.

Table 15 summarises the number of participants for Telecentre A and Telecentre B. In summary, there were 14 participants for focus groups at Telecentre A; 12 users participated in individual interviews; and 14 indirect beneficiaries participated in individual interviews; and that 2 users were observed on. For Telecentre B, 12 users participated in focus groups; 10

users participated in individual interviews; and 9 indirect beneficiaries participated in individual interviews; and that there were observations with 2 users and 2 indirect beneficiaries.

Table 15: Summary of the Participants for Each Data Collection Method

	Telecentre A		Telecentre B		
Method(s)	**Users**	**Indirect beneficiaries**	**Users**	**Indirect beneficiaries**	**Total participants**
Focus groups only	6	-	5		11
Interviews only	4	14	4	7	27
Focus groups and interviews	6		5	-	13
Focus groups, interviews and observation	2		2		4
Interviews and observations			-	2	2
Total	**18**	**14**	**16**	**9**	**57**

4.10. Ethics

I have been in contact with both telecentres for a while. For example, in May 2018, I was at Telecentre B to enquire for background information. Permission to conduct the study was granted by both telecentres verbally.

For observation, the participants were informed about the observation. Anonymity is observed during the write up to avoid identification of participants. For example, broad descriptions are used for participants' details; and codes are used instead of names for both telecentres as well as the participants when presenting analysing data. Confidentiality is also maintained and the participants were informed of such so that they should be able to share information including personal information without having their identity exposed (DeMunck & Sobo 1998). Informed consent form was also given to participants to read and sign before taking part. The form was in both English as well as local language (Chichewa) for those who have difficulties in understanding English.

The usual attention to ethical issues were also observed. Participants' verbal informed consent was sought before they participated in the study. Participation was voluntary, and responses were treated with utmost confidentiality. Specific consent was sought to use voice recorders during interviews. Anonymity of respondents was assured and participants made

aware that they could withdraw from the study at any time (Research Ethics Guidebook 2015).

I also filled in the online ethical form for Royal Holloway University of London in order to comply with the rules of the university in relation to research. See Appendix G.

4.11. Data Analysis

The data analysis is inductive and not necessarily grounded approach that starts with blank slate because I went into the field with some concepts as the themes or concepts in the Research Framework guided the data collection. The use of the framework in this study was not to determine or constrain but rather guide the exploratory study and show the focus or the parameters of the study just as I was open during fieldwork. Therefore, further to the framework, I am open to new concepts that emerge from data analysis. Therefore, the data presented in this thesis falls under concepts that are both in the framework and those that emerged through fieldwork and analysis. This approach has been applied in previous studies in the ICT4D and empowerment (such as Mukherjee 2017). Particularly, I analyse my data set using the Gioia method which is an inductive approach to data analysis. It provides comprehensive data collection and analysis. It also helps to delineate themes and aggregate dimensions (Corley & Gioia 2004:183). According to Reay (2014), the Gioia method is based on interpretivist philosophical approach which groups together first order codes before grouping them into second order themes and aggregate dimensions. There are three main assumptions of Gioia method. First, that the world is socially constructed; second, that people who construct realities are knowledgeable agents and the role of researchers is to tell what informants experience i.e. glorified reports; and third, that researchers are knowledgeable and can find patterns in data, which would form concepts that would entail relationships and lead to theory development.

Gioia method is being widely used in qualitative empirical studies in a wide range of areas. For example, Panteli and Sivunen (2019) used Gioia in exploring development of identification of members in online communities; Jaskiewicz et al. (2016) in understanding approaches that family firms use in managing succession; and Jaskiewicz et al. (2015) used Gioia in examining how family firms build transgenerational entrepreneurship. McGivern et

al. (2015) used the method to understand identity or managers; Vigneau et al. (2015) used the method in understanding the impact of global governance on management practices of firms; and Smith (2014) analysed data in understanding top managers' decision making in managing and sustaining strategic paradoxes suing Gioia. Furthermore, Van den Brink and Benschop (2014) employed Gioia analysis technique in understanding the impact of networking practices on gender inequality; and Corley and Gioia (2004) employed Gioia in understanding identity and change during and after spin off of an organisation.

Following the Gioia method, I firstly engaged myself in First Order analysis. This is the first step that involves identifying initial concepts in the data and grouping them into categories (open coding). The First Order is informant-centric as it adheres to informant terms (Corley & Gioia 2004; Gioia et al. 2013). The First Order stage helps to consider participants as knowledgeable agents which simply means that they are "people who know what they are trying to do and can explain their thoughts, intentions, and actions to us" (Gioia 2014:6). My role as a researcher is to make sure that I capture what the participants experience and its meaning in participants' own words.

The First Order analysis is followed by Second Order analysis, which involves searching for relationships between and among the categories. This step facilitates assembling the categories into the higher order themes (Smith 2014). In this stage, researchers are considered as knowledgeable agents (Gioia et al. 2013) hence the stage is considered to use "researcher-centric concepts, themes, and dimensions" while the First Order uses "informant-centric terms" (Gioia 2014:6). The implication to my study is that in this stage, I was using the informant-centric codes, checked if there are similarities and differences in what I had had identified in the first order analysis, and assemble and label or giving phrasal descriptors using my own words. The Second Order also enables to ask whether themes may help giving concepts that explain and describe the phenomenon. According to Gioia (2014), the first order concepts rely on semi-structured interviews. However, researchers ought to supplement this by data through other methods such as observation and document analysis. In the Second Order, it is of particular importance to pay attention to concepts or themes that do not show referents to literature.

After the Second Order analysis, I engaged in constructing aggregate dimensions. This could be said as the third and last step in data analysis using Gioia method. This step involved me examining the themes that emerged in the Second Order analysis and distil them into aggregate dimensions which may form basis data structure. The data structure did not only help me present in visual aid but also helps show how my data analysis progressed from first order to the final stage of aggregate dimensions. Following presenting data in form of data structure, this final stage also involved me presenting data structure into grounded theory which presents concepts and themes and making relational dynamics of concepts transparent (Corley & Gioia 2004; Gioia et al. 2013) which is the main aim of my study. Appendix I shows an extract from the data structure based on three themes. Throughout data analysis chapters, Chapter 5 and Chapter 6, I have also included extracts from the data structure.

I employed the Gioia method because it helps to discover new concepts other than affirming to existing concepts. It helps to avoid devising interview protocols using existing theories and terminology because it would make key aspect of sense making. In addition, as one of the aims of my study is to build theory, Gioia method is essential because it helps theory building. Being a qualitative research, the method is also appropriate for my data analysis as it helps in achieving rigor in qualitative research (Gioia et al. 2013).

4.12 Limitations During Data Collection

Just as any study, in this study there were limitations during data collection. The first limitation was that I planned to conduct focus groups with indirect beneficiaries to get a collective view on how they get empowered by users. However, unlike users, this group of participants was difficult to organise.

The other limitation is that during the data collection, some indirect beneficiaries indicated that they empower others (more details in the data analysis chapters). However, I was unable to get hold of examples of people who benefited from the indirect beneficiaries.

The other challenge was that even if some users had indicated that they do empower community members, it was difficult to reach other indirect beneficiaries. Some had relocated

and for some, I failed to arrange meetings with them. I also aimed at interviewing other key informants such as leaders in the community but did not manage to do that.

4.13. Chapter Conclusion

The main aim of my study is to understand how individuals empowered by telecentres empower rural communities. This chapter has examined different methodological perspectives to research as well as selected the appropriate ones for my study that guided me in carrying out the study in Malawi. The main elements covered in this chapter include: research questions; philosophical approach; research strategy; the study context; the case study approach; the data collection methods; the targeted participants; gaining access into the field; data collection process at the two telecentres; ethics followed during the study and limitations encountered during data collection.

CHAPTER FIVE: DATA ANALYSYIS FOR TELECENTRE A

5.1. Introduction

This chapter presents data collected from Telecentre A. The data presented in this chapter were collected from users, indirect beneficiaries and telecentre manager using FGDs, interviews and observations. The data analysis follows Gioia methodology which I have explained in detail in Chapter 4. Briefly, the data analysis involves three stages. In the first stage, I engage myself in First Order analysis in which I identify concepts from quotes of the participants. This is being followed by Second Order analysis whereby I search relationships in the existing codes. Finally, I put the codes in aggregate dimensions. This is followed by forming a data a structure stage before building a theoretical framework.

Firstly, the chapter describes the case by giving information regarding its catchment area, its location and its background information and the services the telecentre provides. This is followed by the demographic characteristic of the participants. The data presented in the chapter is based on the six aggregate dimensions that emanate from the data on the role of Telecentre A in empowering the community. These include: Telecentre's influence on users (empowered users); empowered users influencing community empowerment at micro (individual) level; empowered users influencing community empowerment at macro (collective) level; enablers of community empowerment; inhibitors of community empowerment; and user's support towards telecentre. To preserve anonymity, I use prefix TAUN for Telecentre A User Number; and prefix TAIDBN for Telecentre A Indirect Beneficiary Number.

5.2. Case Description

Telecentre A falls under community managed models and is one of the three telecentres under such model in Malawi. The telecentre was established to provide the benefits of ICTs in rural communities. Just like all telecentres, Telecentre A was set up by the Malawi Government through MACRA with funding from ITU and the World Bank while the local community provided land for its establishment. The telecentre started operating in May 2010 hence it is one of the oldest telecentres in the country. In the first few years of its operation, the telecentre used to get support from the government especially money for paying staff and fixing equipment. A few years later, it was weaned off so it could be self-sustaining.

The telecentre is in the Central Region of Malawi as depicted in the map of Malawi presented in Figure 8. It is about 25 Kilometres from the municipality it is established. The area is characterised by poor and bumpy roads, lack of access to clean water and limited access to electricity. The place also has limited accommodation facilities like lodges or hotels for visitors. As such, during my fieldwork, I stayed at a lodge in town which is about 25 Kilometres from the telecentre. This made me drive to and from the telecentre every day. Just as in many rural communities in Malawi, people depend on one another in many aspects of their lives. For example, if they need help, they do not hesitate to contact their neighbours or friends.

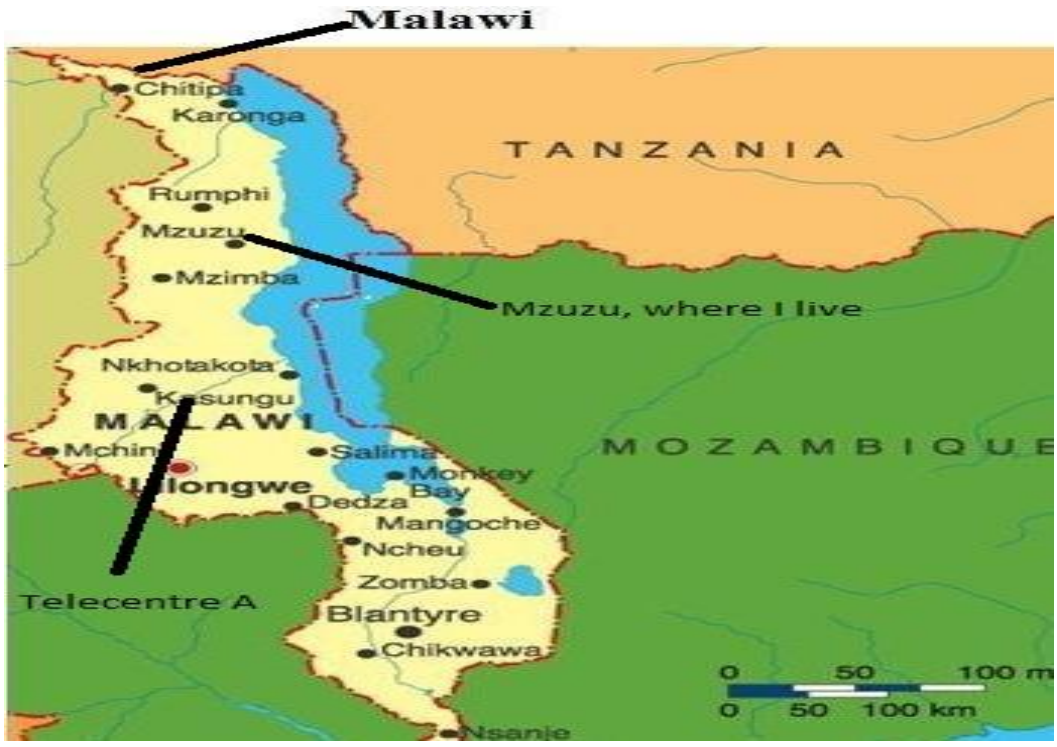

Figure 8: Map of Malawi Showing location of Telecentre A

Its catchment area has a total population of about 180,000 people. People from outside the catchment area are also served by the telecentre. There are about 8 secondary schools and 30 primary schools in the catchment area. People in the catchment area are mainly farmers making farming their main source of income. They mostly grow tobacco as their main cash crop although they also grow maize and other crops.

Like most of community managed telecentres, Telecentre A has a management committee composed of members of the community. These members represent various groups. The telecentre staff also come from within the community and are responsible for day-to-day activities of the telecentre. During data collection, I also found 3 tertiary education students who were there for internship for a period of a year. Two of these students were once attending computer lessons at the telecentre.

Telecentre A could be said to be a multipurpose telecentre because it provides a wide range of ICT services and library services. Currently, the ICT services include: computer tutorials through which people are taught how to operate computers and Microsoft packages; internet services that aid in accessing information online; printing and photocopying services; scanning, binding, and laminations services. The library within the telecentre is open to everyone as long as they pay a fee of K100 (£0.11) per week. One can use the study space and books in the library. The library has a wide range of books including secondary school textbooks. Table 16 indicates the service and the corresponding charges.

Table 16: Services Offered at Telecentre A and their Charges

Service	**Charge (MK)**
Book binding	500 per book
Computer tutorial	2500 per week
Editing	25 per minute
Internet	30 per minute
Library	150 per week
Photocopy	30 per page
Printing	150 per page
ID Card printing	2500 per ID card

NB: £1=MK972.33
1$=MK751.50

The telecentre is the only facility that offers these services within the community apart from the cybercafé that one of the users opened after participating in computer tutorials. However, the cybercafé only provides printing, photocopying and phone fixing services. Therefore, it seems that the community faced myriad challenges before the establishment of the telecentre. Among others, challenges included ICT illiteracy levels; poor information flow because ICT services were far, and lack of library where students could go and study. Therefore, the

creation of the telecentre is of high importance because, among others, it has helped in cutting travel costs in search of similar services as evidenced in the comment below:

"The telecentre has helped the people living in this community, who instead of accessing services [as far as Kasungu town], they can go to the telecentre for a photocopy, thus saving money on travel" (TAUN5).

About 25-35 people visit the telecentre on a daily basis with an average of 30 people a day. Field notes indicate that the majority of these come for computer tutorials and to use the library. The telecentre is open from 8AM to 5PM from Monday to Friday; and from 8AM to 12 noon on Saturday. Figure 9 shows some of users using computers at the centre.

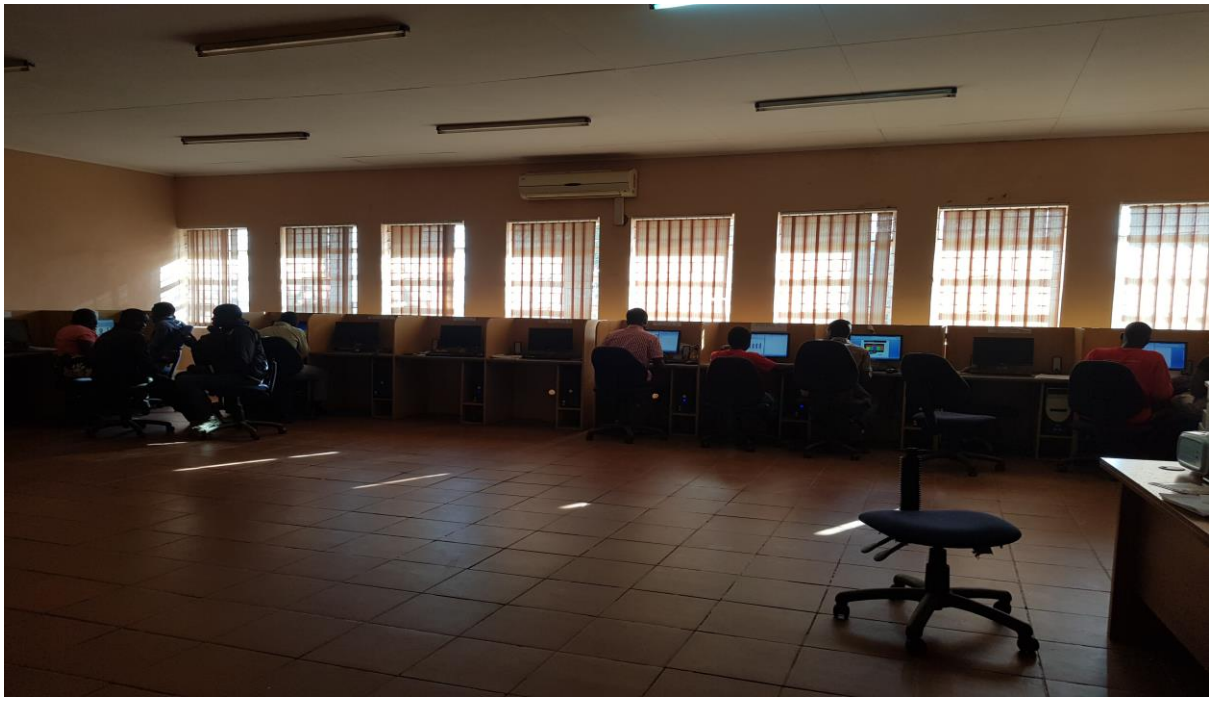

Figure 9: People Using Computers at Telecentre A

5.3. Participants' Demographic Details

Table 17 presents demographic details of both direct beneficiaries (users) and indirect beneficiaries (e.g. families) in terms of gender, age, occupation, highest qualification and income per month in Malawi Kwacha (MK, local currency). For users, the majority were males (11); youth as 17 of the 18 participants aged below 40 years old; and mostly students or school leavers. Users had at least secondary school qualification. The income of users was generally low as the majority earned less than MK30,000.00 (£33) per month. The same trend

was visible in indirect beneficiaries with exceptions on income levels as some earned more than users. The difference in income levels could be attributed to the fact that most of users were students who still depended on their parents or guardians; while a good number of indirect beneficiaries were employed. Table 13 in the previous chapter presents the relationship of indirect beneficiaries to users of Telecentre A.

Table 17: Participants' Demographic Information

		Users	Indirect beneficiaries
Gender	Male	11	8
	Female	7	6
Age	15-25	13	6
	26-35	4	3
	36-45	0	4
	46-55	1	1
Highest qualification	Primary school drop out	0	1
	Primary school certificate	2	3
	Junior Secondary School certificate	1	1
	Secondary School Certificate	11	8
	Tertiary education certificate	3	0
	Diploma	1	1
Occupation	Secondary school student	4	1
	Tertiary education student	3	0
	School leaver	3	3
	House wife	1	1
	Farmer	2	2
	Employed	4	5
	Businessperson	1	0
Income per month	<5000	0	2
	5000-10000	8	3
	10001-20000	2	1
	20001-30000	1	1
	30001-40000	0	1
	40001-50000	3	1
	50001-60000	0	0
	60001-70000	2	0
	70001-80000	1	2
	80001-125000	1	-
	125000-150000	0	2
	>150000	0	1

NB: £1=MK972.33
1$=MK751.50

5.4. Telecentre's Influence on Empowering Users (Empowered Users)

The aim of this study is to find out how empowered users have been empowering rural communities. As stated above, some of the criteria were presented to the telecentre managers

e.g. impact one has on things in the community; and meaningfulness which is about someone who did something to improve their lives such as getting a job after participating in the telecentre (see Chapter 4 for details). Since I explained the concept of empowerment to the manager, he was also allowed to choose more participants after understanding the concept without just relying on the criteria given to him. This, therefore, assumes that all users participating in the study were empowered. Nevertheless, users were still asked about the changes they had experienced after using the telecentre. The empowerment at this level is considered as individual empowerment. Evidence of empowerment of users have been put in three distinct categories: career development; learning and development skills; cognitive skills; and community participation. These are further grouped into three main aspects of individual empowerment based on Zimmerman's Empowerment Framework and the Research Framework presented in Chapter 3: intrapersonal, interactional and behavioural empowerment. The paragraphs that follow explain each of these providing evidence that support them.

5.4.1 Intrapersonal Empowerment

This is how an individual views and thinks of themselves. Under this type of empowerment, there is only one form of empowerment learning and self-development.

Learning and Self-development

The only form of intrapersonal empowerment of users thanks to the use of the telecentre revolved around gaining *learning and self-development*. Osman and Tanner (2017) define self-development as the ability of the telecentre to enable users learn new skills or overcome bad habits. I, therefore, conceptualise learning and self-development as new skills and things that a telecentre user gains and uses in learning and developing their lives. This came out as the main form of empowerment for users as evidenced by the majority of users' responses. There were four aspects of learning and self-development: learning how to use computers and other ICTs, thereby increasing ICT competence; good performance in school after using the books of and or reading space within the library in the telecentre; computer tutorials acting as basics during tertiary education such as for those who pursued diploma programmes; and increased knowledge which was school related and sometimes reasoning skills. These aspects changed the way users viewed and thought of themselves such that sometimes they regarded

themselves highly indicating improvement and attainment of intrapersonal empowerment. Table 18 gives some of the quotes under each of these aspects.

There was evidence that after using the telecentre, users possessed enhanced ICT competence or skills. Most of users' comments were characterised by remarks that the telecentre was helping them gain knowledge in computers which they did not know how to use previously. For example, TAUN11, a tertiary education student said: *"in terms of computer, we gained knowledge and skills we can use" (TAUN1).* For some, they even had computers but did not know how to operate them. Results show that the increased computer competence helped users to gain confidence which they later used in teaching others. No wonder when users were asked to mention how they empower the community, teaching computers was one of the ways that was mentioned by most users as discussed in the next section. Apart from computer skills, users had been able to acquire other ICT skills such as using internet and were able to print out and photocopy materials. For example, when asked the changes they experienced because of using the telecentre, one user said that "*using the telecentre has really helped me a lot because I did not have special [ICT] skills such as using computers. I now know how to use Internet, I have known how to photocopy, print and many more through acquiring knowledge from the telecentre" (TAUN5).*

In addition to help increase ICT competence, the ICT skills that users acquired from the telecentre helped increase their ICT self-esteem in how they could work with computers as they were now comfortable unlike before. For instance, one user said:

> *"Even now as I am working, I work comfortably because I have been here [at the telecentre] learning and also working here [at the telecentre as an intern]. So, what I was doing here [telecentre] is the same I am doing, teaching some students" (TAUN18).*

ICT skills are essential especially in the contemporary world in which most of the things seem to rely on the ICTs (OECD 2016). One user echoed this as she said that computer knowledge is important in the contemporary society where things seem to be technologically driven as evident in the following comment:

> *"It is important [to be computer literate] because one easily does things when they are computer literate especially in the contemporary society" (TAUN6).*

Table 18: Aspects of Learning and Self-development

Aspect of learning and self-development	Exemplary quotes
Learning how to use computers and other ICTs	*"I had a chance of learning computers. I was able to know many things that I did not know about. As I said earlier on, I had a computer, I still have it but at first [before coming to the telecentre], I did not know how to use it" (TAUN2).* *"It helped me because it helped me know of things I did not know, but when I came to learn I became knowledgeable. Maybe because of the same knowledge some people do ask me to do such things like printing for them" (TAUN3).* *"The telecentre helps because I learn how to use computer and I use the internet…" (TAUN8).* *"The telecentre has helped me because I have known how to use the PC" (TAUN9).*
Computer tutorials acting as basics at tertiary level	*"The telecentre has helped me a lot because I am studying accountancy and that requires someone who is computer literate" (TAUN2).* *"It [the telecentre] has really helped me because when I went to school, I did not find my course challenging just because I went here [telecentre], I studied the basics of computers" (TAUN18).* *"…. where I am studying, they need someone who has knowledge of computers. Therefore, before I enrolled, I had covered some of the things. So, at the college where I am studying, mostly when we are learning computers it is like a repetition of what I had already learned, adding to the knowledge I already had acquired from the telecentre. Topping up the knowledge" (TAUN11).*
Increased knowledge	*"It has helped me when it comes to reading. I do gain knowledge and ideas from the books [available in the telecentre]" (TAUN6).* *"Just because we have internet [in the telecentre], when I read books and do not understand something, I do go on Google and I am able to easily understand" (TAUN14).* *"I have learnt a lot. And there is a great change in the way I used to reason as compared to how I reason currently" (TAUN8)*
Good performance in school	*"In terms of studying, it helped me perform well in terms of my education" (TAUN5).* *"...when I was preparing for MSCE examiations I used to come here [telecentre] to study and I passed" (TAU12).* *"Firstly, when it comes to studying in the library, that has benefited us a lot because most of the times we are here studying and that has improved our performance a lot" (TAUN1).* *"It has helped me a lot because I thought I would struggle a lot with my studies since I am doing correspondence studies. Yet my friends are attending classes somewhere and we would seat for the same examinations together, the same examination paper. Yet I am here studying from home. So, since I was using the telecentre which is a quiet place for studying, conducive for studies, no noise. So, that helped me a lot in my studies. It has helped me a lot in my life" (TAUN10).*

Furthermore, computer tutorials acted as a basis for tertiary education. This particularly applied to the ones who had pursued ICT-related courses at tertiary level. Among others, the

basics of computers acquired from the telecentre helped in making their courses easy to understand because they required *"...someone who is computer literate" (TAUN2)".*

In addition, users gained learning and self-development whereby the telecentre was helping users improve their knowledge. This was due to the availability of information on Internet, library and ICT skills. Specifically, among others, the knowledge gained helped in having good reasoning skills. For example, one user said: *"I have learnt a lot. And there is a great change in the way I used to reason as compared to how I reason currently" (TAUN8).* Furthermore, the knowledge gained through books for example, helped students not to have difficulties in class when they are learning *"...because it just adds to what [they] already know" (TAUN8).*

The other aspect of learning and self-development is users' good performance at school. Results show that the telecentre had helped users perform well in their studies. This was due to the library that is within the telecentre which provides access to books as well as reading space. For example, one user who used the study space and books in the library of telecentre when she was seating for MSCE examinations for the second time said she benefited from the telecentre "*because [my performance] improved. I was repeating. Though I did not perform with very good grades but at least there was an improvement in my performance" (TAUN2).* Many users were indeed seen coming to the telecentre to use the library. Field notes also indicate that many schools in the community do not have library where the students could use for such purposes. As indicated by of the indirect beneficiaries, "*...because many schools do not have libraries…some students get helped through the telecentre" (TAIDBN5).* Furthermore, as put by one of the users, "*for many people to find books, it is expensive to buy books. So, people do come to read books [in the library within the telecentre]" (TAUN12).* This point is understandable given the low incomes of people in rural areas. Therefore, having a library in the telecentre was a great opportunity.

5.4.2. Interactional Empowerment

This is how individuals understand and relate to their environment. It is about awareness of the forces that shape their environment, options or choices that they have to help them act and achieve their goals, the resources required to positively change their environment and the ways of obtaining these resources. The main forms of empowerment under interactional

empowerment include career development, leadership skill, increased social status and critical awareness. These forms improved the way users interact with their environment hence interactional empowerment.

Career Development

The use of telecentre services, especially computer tutorials, enabled users' *career development* in three ways. Firstly, the results from Telecentre A indicate that the use of the telecentre created *employment opportunities*. Specifically, after participating in computer tutorials some users got a job to be operating in cybercafés or stationery shops where they provided services such as photocopying and printing. One user said:

> *"Just because I acquired computer skills from the telecentre, I was employed by someone to be operating his café…" (TAUN11).*

Unemployment rates in rural areas of Malawi are high (Bolton 2016). Most people rely on agriculture which also does not generate much income. Therefore, having facilities like telecentres which help people get jobs, in the end, is of high importance.

Secondly, the telecentre helped in shaping career of users thanks to the computer tutorials offered in the Telecentre, users could gain skills which helped them build their career. One user said:

> *"By then [before coming to the telecentre], I had no career and I kept asking myself that what exactly is my career, right? But when I came here [telecentre] that is when I said of, I should pursue this [ICT] course" (TAUN18).*

Lastly, the use of the telecentre helped in shaping plans and prospects. There were users who had not done any meaningful contributions to their life or to the community but had plans. For example, when TAUN16 was asked what they had done to the community after attending computer tutorials and accessing other services, he indicated that he had not done any meaningful contribution. However, he was "*planning to do that by the end of this year [2019] I should have done something. I want to open my own small café" (TAUN16).*

Leadership Development

The other interactional empowerment influence of telecentres on users is *leadership development*. This took place by having users gain leadership skills and roles in their communities. Results from Telecentre A show that users had gained leadership roles especially within groups, at schools and churches in the community. Within the groups, one user explained that because of the information he accesses within the community, he was active in discussions and that would make people choose him as leader. In schools, one user, a secondary school student who visits the telecentre to study in the library indicated that after using the books in the library, he became active in class and was able to answer most of the questions and later on was elected leader for chemistry subject. The other user from tertiary education echoed this and said that he was elected a leader due to his good performance that came with the background in computers he had acquired through using the telecentre and was able to guide fellow students as evidenced in the comment below:

> *"Because I had had already used the telecentre which helped me perform well, right? So, I would be a leader guiding other people [fellow students]" (TAUN18).*

Leadership in church was associated with being entrusted with work to do on behalf of the church. One user, who once worked in the telecentre, said:

> *"…when most of people wanted to do their things, they would simply say we already have someone working at the telecentre, give the documents to him to do for us. So, I would also enlighten them on some of the things that take place here at the telecentre. I was also chosen as one of the elders at church" (TAUN15).*

Critical Awareness

Furthermore, the telecentre empowered users through critical awareness. Critical awareness is concerned with how people become aware of the issues happening in their communities (Osman & Tannner 2017). In this study, I conceptualise critical awareness as having telecentre helping people to be able to know what is happening in their surrounding environment which could be their community, their country, and the world. Results show that the telecentre helped users to be aware of what was happening in the country hence keeping up with current affairs in the country and globally; and knowing other things such as prices for items. For instance:

"The telecentre has opened up our eyes and made us know how things are happening in the country. The telecentre is helping us live the lives we have always wanted because we know what is happening in the country. Like what is happening in other countries, knowing how sales are being done around the world. We now know that this is how such and such items are being sold" (TAUN16).

Increased Social Status

Further to what characterises interactional empowerment, my study reveals that telecentres lead to interactional empowerment of users through improvement of users' social status through increasing status symbol in their community. In simple terms, status symbol could be considered as some form of increased prestige in the community (Cheuk, Atang & Lo 2012). In this study, status symbol was about the way people viewed and regarded users in the community. It seems after using the telecentre, users were able to be known to many people and sometimes were entrusted with some responsibilities such as writing letters for the chiefs and printing out materials for the church. For example, one user said:

"...sometimes there are things in relation to the services at the telecentre. So, they just say, send these people because they are knowledgeable, they will do on our behalf. Like the very same example I have already given about village banks... people who set up organisations like CARE etc they do send us to print out booklets for them" (TAUN6).

"...but I would say that the telecentre has helped in making me known to people. People now say this guy has the capabilities that would enable him operate things like these" (TAUN13).

"Even, for example, at my church, aah, things to do with writing, they give them to me to do that here [telecentre] to photocopy or typing. Or just printing just because I have knowledge of how I can use computers..." (TAUN11).

5.4.3 Behavioural Empowerment

Behavioural component of individual empowerment is about the activities that people engage in in addressing their community needs. There was evidence that the usage of Telecentre A led to *community participation*. Community participation involves taking part in socio-political activities that aim at bringing change in the community (Peterson et al. 2005; Petrič & Petrovčič 2014). There was evidence that telecentres helped users in community participation. Specifically, one user who once worked in the telecentre and serves as chief in

his community claimed that after taking part in telecentre activities, he was able to take part in reclaiming their land from Ministry of Agriculture. He claimed:

> *"I would say that it [telecentre] helped open our eyes and know that this is how we can help others especially with what we were doing here, we could meet different people. So, that removed our fears. So, like I participated in getting back our land from the ministry of agriculture" (TAUN16).*

The section that follows discusses how the empowered users empower their community.

5.5. Empowered Users Influencing Community Empowerment at Micro Level (Individual Empowerment of Community Members)

The results on how users empower their communities indicate that community empowerment occurs at two levels: micro and macro levels. In this section, I discuss how users lead to empowerment at micro level while the next section discusses the community empowerment at macro level.

Evidence shows that empowered users lead to community empowerment at micro level by empowering individuals. These individuals were people whom users were connected to such as friends, relatives, colleagues and fellow students. Therefore, I also call this as individual empowerment. The micro or individual empowerment occurred in four different categories or forms namely: creating employment opportunities and improved work for others; learning and development for others; cognitive skills among community members; and increasing critical awareness for others. Using the types of empowerment in the Research Framework, these can be further be grouped into two: intrapersonal and interactional empowerment.

5.5.1. Intrapersonal Empowerment

Users played a role in how others viewed and thought of themselves. This took place in two ways: learning and development and cognitive frame and skills for others.

Learning and Development for Others

Just like users who had gained learning and self-development through using the telecentre, the indirect beneficiaries gained learning and development skills through users. Users led to learning and development skills of indirect beneficiaries by teaching computers and other

ICT skills. For example, users taught indirect beneficiaries such as relatives, friends and colleagues how to operate computers. Others were taught how to photocopy and print. Some users claimed:

> *"Also, there are other people like a good example could be my younger sister. I am able to teach her…. Telling her that this is how we operate computers. She had no computer knowledge at first. Even how to click, she did not know. So, I tried what I could manage teaching her, I taught her" (TAUN2).*
>
> *"Yeah. There is a friend and colleague whom I have helped in relation to his work because he works in the reprographic section [of our library]. That is not my job but there was a time I was working in the library so I helped him that this is how we operate these ICTs; say printing this is how we do it" (TAUN10).*

The teaching of computers took place at different places such as homes and workplaces. For example, those who had computers in their homes were able to teach others in their homes while others took advantage of the computers at their workplaces. In the process, it seems users helped in teaching the computers and other ICTs even those who could not afford acquiring the computer skills directly from the telecentre. Therefore, this helped the telecentre in reaching out to people who had limited means of directly using its services. For example, one user who taught his colleague and friend claimed:

> *"Ehee. So, after acquiring computer skills from the telecentre, I have been able to teach some other people who could not afford paying due to limited financial resources" (TAUN13).*

Users' ability of teaching computers and other ICTs could also be said that they helped in increasing ICT competence of the indirect beneficiaries. ICT competence could be defined as people's understanding and skills of ICTs that would enable people believe in being able to perform activities given the skills they possess (Spreitzer 1995; Aji et al. 2010). When approached, some indirect beneficiaries indicated to have gained computer and other ICT competence through users thereby confirming users' assertions on teaching computers. For example, a sister to TAUN2 said that she had acquired computer skills from her sister which in the end will help her "*to be an expert of computer, making the computer my best friend. Yes …for people to know that aah this is an expert in computer" (TAIDBN4).* In addition, the colleague of participant TAUN10 agreed that he had learnt a lot from him. Even though he

had never used a telecentre, he acknowledged that his ICT competences had improved through the telecentre. One interesting finding from him was that he even linked the ICT skills to use of phones thereby making telecentres relevant in the age of mobile technologies. He said:

> *"I have learnt a lot through the telecentre especially on operating phone and computers. We have computers at my workplace. I was ignorant. I did not even know how to print or even send something [via email]. Now I know" (TIDBN14).*

In line with the results in the previous section on how users got empowered, it can be concluded that the main effect of empowerment is on increasing ICT skills and competence as the majority of indirect beneficiaries benefited the same way. No wonder when both users and indirect beneficiaries were asked what the role of the telecentre in their community is, most of them indicated "*it is to teach computers" (TAIDBN3)* and provide ICT skills.

Telecentre empowered users also improved learning and development skills of indirect beneficiaries by *sharing knowledge* they had acquired from the telecentre such as books in the library and information on the internet. The information users shared was mainly school-related information. For example, one user, a secondary school student said: *"Yes, we do share information especially school related information" (TAUN12).*

Furthermore, the other way through which indirect beneficiaries' learning and development skills improved was *good performance at school*. This was a result of using the library after users had recommended to them or raised the awareness of the benefits of using the telecentre for studies. For example, one of the indirect beneficiaries who, at some point used the telecentre when TAUN10 encouraged her (raised awareness of the telecentre) and stopped as soon as she sat for MSCE examinations, said:

> *"I benefited a lot because of studying [at the telecentre]. I performed well because I was using the telecentre [for my studies]" (TAIDBN7).*

Cognitive Frames and Skills for Others

Users increased cognitive frames for others. Specifically, users helped in changing the mindsets of some people towards the computers and telecentres which used to be negative. One user narrated a story of how the people in the community viewed computers as bad

things because whenever the government came to their communities to write names of the people to benefit from some social services like subsidy programs, the same people could come back and tell them that the computer had deleted their names. However, having learnt computer herself, she came to know that the computer cannot delete things on its own but rather, by someone. She later shared with the community and helped change their mindsets. She said:

> *"Because we have different perceptions of Internet because these things came late in Malawi. Some are born before computers whiles others are born after computers…like our parents. Even some educated ones but the elderly. They do not know about computers…Now, because we have acquired computer skills, they know that we are resourceful and ask us… So, this changes their mind-sets. That aah we used to say that these computers delete names at the DC's offices, so this is the computer? This is how it is used? Their mind-sets have changed" (TAUN1).*

5.5.2. Interactional Empowerment

The users empowered others by improving the way others interacted with their environment. This was reflected through two forms: creating employment opportunities and improved work for others; and increasing critical awareness for others.

Creating Employment Opportunities and Improved Work for Others

There was evidence that users at Telecentre A *created employment opportunities for others* in the community. For example, one telecentre user had been able to set up a cybercafé. This helped some indirect beneficiaries get a job thereby increasing local employment. Eventually, this helped in increasing finances of the employee which he could use in solving problems of his life. The following comment lends evidence to this as he said:

> *"When he [TAUN17] employed me, he gave me a job which gives me things to do and I earn something at the end of the month to take care of things in my life" (TAIDBN1).*

Furthermore, empowered telecentre users empowered the indirect beneficiaries by leading to *improved work efficiency for others.* This was in line with the computer and ICT skills they had acquired from users. Specifically, when the indirect beneficiaries applied ICT skills in their work, their work became simple, easy and efficient. Some of the responses on this included:

"Yes. I will give an example; we do have records that we write on daily basis. When we write the records, we enter into the computer so that we can in case they [the handwritten notes] may get lost. If they get lost, we just search on the computer" (TAIDBN12).

"It helps [having knowledge in ICT] because at work we do process books and enter the records in the computer. I do that easily [processing records] but I used to struggle to keep the records. Now I am able to do that easily as compared to how I was previously" (TAIDBN14).

Similarly, some three ladies who were part of a village bank indicated that they had benefited from the telecentre when TAUN6 was helping them with the production of booklets which eventually helped simply their work. The books were being used to write their records especially on how each had saved every month. The village banks involve rural community members coming together contributing as savings every month from which some can take loans (Thuysbaert, Karlan & Udry 2012). Therefore, being able to organise their records using the books that the telecentre users were processing for them was of great importance. One of the ladies said:

"The books are so useful because when she brings us the books, everyone has theirs and we know how much we have saved" (TAIDBN9).

Increasing Critical Awareness for Others

Users helped in improving critical awareness in three ways. Table 19 depicts these three aspects with some examples under each aspect. Firstly, users helped indirect beneficiaries by *increasing awareness of the existence of the telecentre and its services*. This was important given the fact that "…*other people they do not know that there is a telecentre; and sometimes because it is located at a village" (TAUN17).* Secondly, users increased awareness of the benefits of the telecentre to the community. It seems users were raising awareness of the telecentre's existence and the benefits of using the telecentre in the hope of attracting more people to the telecentre. For instance, one user said:

"I use the library and able to tell my friends about the benefits of telecentre and they also start coming here to study in the library" (TAUN12).

Indeed, when one of the indirect beneficiaries had been asked how he benefited from the telecentre, he explained that he acquired computer skills from her daughter which later helped him to have the quench to start using and learn more from the telecentre. He said:

"She [my daughter] taught me how to operate it [computer]. Yes she was doing here using the laptop. And thereafter I went there …at the telecentre yes. After some time I could go there and told them my daughter taught me this, this and that. They are like ok you are in the right channel. We operate like this and we do this and I said it is good" (TAIDBN13).

Table 19: Aspects of Critical Awareness for Community Members

Aspect of critical awareness	**Exemplary quotes**
Increasing awareness of the telecentre and its services	*"I tell people that there is a library in the telecentre where you can go to study. So, people do come to study here" (TAUN12).* *"So, I can say the part that I took from this place is to bring awareness to other people because… other people they do not know that there is a telecentre; and sometimes because it is located at a village" (TAUN17).* *"I would say that when we help them and also tell them that we learn this from the telecentre, that is when their interest develops and they may start using the telecentre" (TAUN16).* *"When it comes to interacting with my fellow youths. I do tell them that my friends, if you need a good place for reading/studies then it is the telecentre. So, when those people came here for the first time they found it to be a good place" (TAUN10).*
Increasing awareness of the benefits	*"I have a cousin who sat for form 4 examinations last year. He is now at Lilongwe Technical College also studying towards [Diploma] in IT. He was just staying not even studying and told her to be coming together with me to study and use library in studying. From that time he started using the telecentre and did well in his eexaminations" (TAUN14).* *"When I learnt in the telecentre I saw its benefits and told some people to be coming to the telecentre to learn computer" (TAUN9).* *"Helping to change other people's lives so that they should also be aware of the technologies in the telecentre and their benefits" (TAUN6).*
Increasing critical awareness	*"One can find information on different topics on the internet including current affairs. When I come here [telecentre] and see something online I tell people in my village that I was at the telecentre and read about this online there will be such and such a thing on this particular day. So, those people get to know of something through my using internet in the telecentre" (TAUN14).*

When users sold the idea of using the telecentre to the indirect beneficiaries which eventually attracted them to start using the telecentre, they hoped that, in the end, the indirect beneficiaries would get empowered as evidenced in the following comment:

"I had a girlfriend, before I married her, I told her 'go to school first, to seat for form 4 examinations again because you did not do well at your first attempt you have to go back to school…' Now, she really went back to school. She wrote her form 4 examinations and for all her studies I told her that the best place for studies was the telecentre…Every morning by 8AM she was coming here to study. She did well in her studies. I married her and now she will be going for teaching course because of the knowledge she gained here…So, I have impressed her and empowered her to further her studies" (TAUN10).

This also corresponds well with results on users helping increase performance of indirect beneficiaries in which one indirect beneficiary indicated that when she was encouraged to use study space in the library by one user, she joined the telecentre and eventually passed her examinations. From the results in this section, it can be said that users were important in attracting people to the telecentre because, when users were asked how they came to know of the telecentre, a good number of them indicated that friend or family told them.

Users also empowered the community by raising awareness of the issues in their surrounding community as well as the world. For example, one user explained that he uses the information he gathers from the telecentre to enlighten people on current affairs and topics relevant in their lives. Another user enlightened the community members on the effects of accepting gen-sets for electricity. He said:

"I enlightened people in my community about the coming of new gensets, the ones that you can hear making noise on that side. [I said] we should first investigate them before we start using them. All this is possible because we could search [advantages] and disadvantage of gensets on the Internet [in the telecentre]" (TUN16).

5.6. Empowered Users Influencing Community Empowerment at Macro (Collective) Level

Results from Telecentre A indicate that telecentre empowered users contribute to community empowerment at macro level which I also label as collective empowerment. I conceptualise collective empowerment as changes(s) occurring and benefiting not only one person but many at once.

Social Empowerment

The results from Telecentre A show that users were empowering the community through social empowerment. Social empowerment is about whether ICTs have played a role in improving access to social services such as health and educational services in the community (Gigler 2011; 2014). Much as Telecentre A users had not played a role in improving access to health and educational services, there was still some evidence that users had impact on social services within the community. Particularly, one of the empowered users had been able to set up a cybercafé. Among others, this provides access to photocopying and printing services. Through the services, it has improved *administration of examinations*. This is because previously, primary examinations used to be written on the chalkboard. The primary school students could only be exposed to typed examinations during their national primary leaving examinationss which are written in grade 8. However, these days, many schools are having the examinations typed so that students get exposed to the typed examinationss at an early stage such as in grade 5. Unfortunately, many schools especially in rural areas do not have printers and photocopiers. Therefore, having a cybercafé that provides such services in the community is a great if as it helps such schools access ICT services. The user said:

> *"You know right now a lot of people they do not write examinations on chalkboard. […] even in primary schools starting from standard three up to eight nowadays, they write [examinations] on paper. So, they used to come here [telecentre] to do that, but right now, schools come to me and ask for my help to write examinations […]. So, I photocopy... Sometimes, I even [type] their examinations" (TUN17).*

Organisational Empowerment

Users also contributed towards collective empowerment through organisational empowerment. Organisational empowerment is about how things are conducted in a particular a community. E.g. transparency as in how things are done, involvement of people in decision-making, accountability; and better coordination of organisations (Gigler 2004:18). Results from Telecentre A reveal that after being empowered by telecentres, users could voice out and contributed towards some decisions in their community. For example, TAUN15 said:

> *"As youth, we are able to make contributions not just sticking to what the chiefs are saying. When the chief says something that is not good for the community, we are able to point it out [thanks] to the telecentre disseminating information. So, [before the*

telecentre], people were ignorant because they would just agree to what the chiefs/leaders had said. They did not know how things were done. So, the telecentre here is playing a role [thanks to the] information [it provides]" (TUN15).

Decisions in Malawian rural communities like the one where Telecentre A is located are made by leaders, especially chiefs (Kita 2019). Therefore, involving youths in decision making is something of great importance in such communities considering that the youth tend to be the majority (OECD Development Centre 2018) hence their voices count.

5.7. The Three Core Concepts in the Emerging Framework

Figure 10 shows the relationship of the three main concepts namely: telecentre; empowered telecentre users; and the community that are emanating from the discussed themes so far. These form the core concepts of the theoretical framework that will be built from the data.

The telecentre provides services to the community. Some people from the community choose to use the services. These, eventually, get empowered. The empowerment takes place in different categories. Firstly, the telecentre influences ***intrapersonal empowerment*** of users. This takes place by having users gain *learning and self-development*. I define the learning and self-development as new things and skills that one can use in learning and for developing their lives. These included: the computer tutorials act as basics in users' studies; learning how to use computers and other ICTs thereby increasing ICT competence; good performance at school due to books in the library; and increased knowledge.

Secondly, the empowerment of users also takes place through ***interactional empowerment*** which is about how telecentre users interact with their environments in fours ways. Firstly, this occurs through *career development*. Basically, this occurs because there are employment opportunities as users get jobs after participating in computer tutorials; computer studies help users shape their career; and they enable shaping future opportunities such as opening a shop. The second form on interactional empowerment of users is *leadership development* which takes place by having users gain leadership skills and roles in their communities such as at church and schools. Furthermore, users get empowered by gaining *social status* through increased status symbol since their association with using the telecentre helps them become known to many people, and, eventually, rely on them for some work. The telecentre also

helps in users to be taking part in community activities. Finally, the telecentre helps in increasing users' awareness of issues in their communities. The telecentre also contributes towards ***behavioural empowerment*** of users. This mainly takes place in having users participate in the activities that bring positive changes in their communities. Arrow A, the double arrow between the telecentre and users, exists because the telecentre empowers users through the services in the ways discussed; and that, in return, users also support the telecentre. I discuss the support from users in a later section.

The empowered telecentre users then empower the community a relationship represented by Arrow B. The empowerment of the community occurs at two levels: *micro level* which could also be said as *individual level*; and *macro level* which is also called *collective level*. At micro level, empowered users empower individuals in the community. Mostly, these are people they are connected to by, for example, being their friends, relatives, colleagues or fellow students.

The empowerment in different categories as well. Firstly, through ***intrapersonal empowerment***. This takes place when empowered users help to enhance *cognitive frames of community members* as they help in changing the indirect beneficiaries' mind-sets towards computers and telecentres in general. Furthermore, empowered users influence intrapersonal empowerment of others by enhancing *learning and development of others* as users teach ICT skills; share knowledge with others; and indirect beneficiaries improve their performance at school; and lead to improved work efficiency of the indirect beneficiaries. These two forms eventually help in improving the way community members view and think of themselves hence telecentre users enabling others attain intrapersonal empowerment. Users also contribute towards ***interactional empowerment*** of others. This happens as users help in creating employment opportunities and improved work for others as users open cybercafé which employs people; and improved work efficiency for indirect beneficiaries. Users also help in increasing *critical awareness* among community members by increasing awareness of the telecentre existence, services and its benefits; and increase awareness of the issues in the surrounding community. At macro level, users contribute to community empowerment by doing things that help more than one person at once hence also being considered as collective empowerment. Under this, users take part in contributing towards decisions in the community leading to *organisational empowerment*; and through the cybercafés established after using

the telecentre, users take part in typing, printing and photocopying examinations of schools thereby helping exam administration efficiency leading to *social empowerment*.

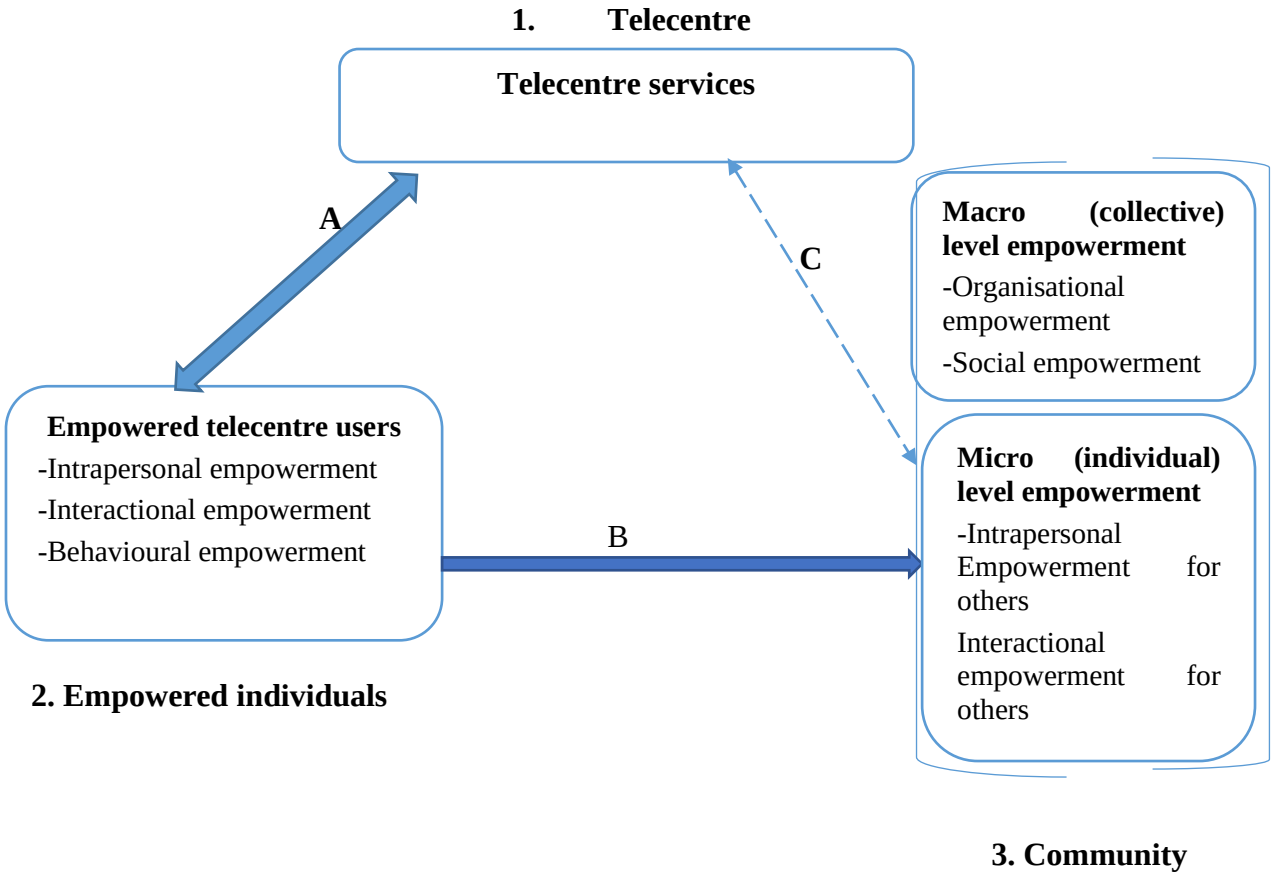

Figure 10: How Users Empower Rural Communities: Three Core Concepts

NB: *-Straight arrows indicate direct relationship between the concepts.*
-Dashed arrow indicates indirect relationship between the concepts.
-The arrows do not represent any sequence but rather the relationship between the concepts in the framework

The double arrow between telecentre and the community, Arrow C, indicates that these depend on each other. Firstly, the telecentre supports the community. This is indirectly as the telecentre empowers users who, in turn, empower the community. The community also supports the telecentre as the telecentre exists within the community. For example, the community gave land for the establishment of the telecentre and some of the community members serve in the telecentre management committee. Overall, this relationship is indirect hence the double arrow between these two domains is dashed.

The sections that follow discuss the factors that enable and hinder the process through which

empowered users from telecentres are empowering the community.

5.8. Enablers of Community Empowerment

This section presents findings on the factors that enable users empower their communities. Four factors emerged namely, social cohesion, sense of community, willingness in beneficiaries and users' personal happiness. Two of these factors: sense of community and social cohesion relate to sense of belonging and social networks respectively of Social Capital Theory presented in Chapter 3.

Social Cohesion

One category of the factors is concerned with helping people based on how they interact and relate with others in their communities. I label that as social cohesion. These included helping those connected to and helping others due to users' friendliness which, in the end, influenced connections and approachability. Table 20 depicts these aspects.

There was evidence that users empowered people whom they *were connected to* such as family and friends, fellow students, colleagues and neighbours. For example, one user said he helped *"different people. Some are the people I relate so well with. Some are my relatives, and some are my parent's friends" (TAUN18).* Similarly, when indirect beneficiaries were asked the type of people they benefited from, most of them indicated that they were either friends, colleagues or relatives. For instance, one indirect beneficiary said he benefits from *"...several of them. Some are my friends. The other one is my relative" (TAIDBN2).*

In addition to connections which characterise social cohesion in literature and Social Capital Theory, my study found that users were helping others in the community because of their friendliness. This friendliness made the indirect beneficiaries approach them for help. For example, one user said: *"I would like to mention that interaction. Interaction with people helps people to easily approach you and ask for helm. Interacting with them, being friendly" (TAUN10).*

Table 20: Aspects of Social Cohesion as Enabler for Community Empowerment

Aspect of social cohesion	Exemplary quotes
Helping people they are connected to	*"Most of the people I do help are my friends" (TAUN10).* *"The people that I help or empower are the people that I am friends with. The people that I usually help are the ones that are connected to me or friends with me" (TAUN5).* *"The ones I have helped are the ones I know and connected to (TAUN2).* *"Some of them [I benefit from] are friends. The likes of [TAUN17], the one you met. He was my friend who later employed because I know the work" (TAIDBN1).* *"[I benefit from] several of them. Some are my friends. The other one is my relative" (TAIDBN2).*
Helping people because of friendliness	*"I would like to mention that interaction. Interaction with people helps people to easily approach you and ask for helm. Interacting with them, being friendly" (TAUN10).* *"[being friendly] helps because people are not afraid of approaching you. But when one is rude people are scared of approaching you, do not know how to approach you but when friendly, people are flexible to approach and ask you things…." (TAUN13).*

Some users indicated social cohesion did not play any role in enabling community empowerment because they helped anyone regardless of any connection implying that connections were not necessarily essential. For example, one user said:
"[I help] even those I am not connected to……" (TAUN16).

Despite this claim, results from the indirect beneficiaries indicate that users mostly helped people they were connected to such as family, friends and colleagues as evident in Table 13 in the previous chapter. The table outlines the indirect beneficiaries, who they benefited from and the relationship with the person they benefited from for Telecentre A. Some of the indirect beneficiaries further indicated that aside the interviewed users who had referred me to them, there were also other users whom they benefited from. Interestingly, most of these indicated that most of the people whom they benefit from are their friends. For example, one indirect beneficiary said she benefits from *"several of them. Some are my friends. The other one is my relative".* Therefore, it can be argued that social cohesion was a strong enabler to community empowerment.

Sense of Community

Mannarini et al. (2014) define sense of community as a sense of belonging to a larger community and the feeling that community members' needs can be achieved only when

people who are connected stay together. Sense of community was also an enabler of community empowerment at Telecentre A. Table 21 illustrates different modes of showing sense of community. Telecentre A users believed that for them to achieve something in the community, more than one person is required. Therefore, sharing what they got from the telecentre with others helped in achieving things together quickly and easily as this as others would be equally knowledgeable.

Sense of community is also characterised by emotional connection. My study found that users were empowering the community out of love for others and the community around them. For example, one user said: *"it is all about love because if I wasn't loving I would not care about empowering people. I would be saying each to their own" (TAUN10).*

Further to the facets of sense of community available in the literature such as realisation that collective goals can be achieved when community members work together, my study found that empowered users were empowering the community so that all community members should be knowledgeable. For instance, one indicated that she empowers people because "a*ll I want is that everyone should be knowledgeable" (TAUN6).* Some users as evidenced in Table 21 added that when others are equally knowledgeable they would not be doing things ignorantly and would ensure that they keep up with technology. Most importantly, users seemed to consider it important for others to be knowledgeable as well because users did not want others to be as ignorant as they were before they started using the telecentre.

Furthermore, sense of community was reflected in users helping others because of the feeling that benefits of the telecentre should be widespread. Users felt this was important rather than having the benefits limited to them only. Many users' responses were characterised by *"the benefits to be widespread…" (TAUN11).* Some users even extended this by saying that they felt that the telecentre would only be useful if everyone benefited from it because when that thing is kept to "…*yourself, that way it means that thing is useless…" (TAUN16).*

In addition, sense of community was an enabler of community empowerment because of the feeling that if only one person is knowledgeable the community would suffer. Users indicated that they were empowering the community because they felt that if what they knew through

the telecentres remained with themselves then the community would suffer in their absence when, for example, they relocate to other places or die. For example, TAUN16 who had played a role in empowering the community through teaching a colleague computer said:

"…if I learn and do not share that with others, if I die or relocate to somewhere, the community would suffer. But when I share the knowledge with others, those people will use it. Including my children in their future, they will have that knowledge" (TAUN16).

Table 21: Sense of Community as an Enabler of Community Empowerment

Aspect of sense of community	**Exemplary quotes**
Helping others in the community would help in doing work quickly and easily.	*"It is just that we do not know but I believe that sharing experience helps to do something quickly as compared to only have one knowledgeable person. It makes life easier because you are sharing knowledge, you do something together and you do it quickly as compared to have only you do it on your own" (TAUN1).*
Helping people out of love.	*"Aah this is how I was born; I love people. All I want is to see people developing. They should no longer be ignorant. The community should be famous" (TAUN15).*
All community members should be knowledgeable.	*"All I want is that everyone should be knowledgeable" (TAUN6).* *"What made me [start empowering the community] is that because I used to admire my friends whenever they came here to learn. I admired them. So, what I want is that I should teach others so that they can also have ICT skills. They should also be knowledgeable and not lag behind technologically" (TAUN5).* *"What makes me empower people is that I want everyone to be knowledgeable. I think it is a feeling that everyone should be knowledgeable so that they should not be doing things ignorantly" (TAUN2).* *"I sympathise with people especially considering the way I was. Now, my life has changed for the better. So, I would also want to share the skills I have with others for them to be knowledgeable as well. That is why I usually tell people of the goodness of the things [such as telecentre]" (TAUN15).*
Helping others for telecentre benefits to be widespread.	*"The benefits to be widespread…… I should also be able to share with fellow like, community" (TAUN11)* "*Whenever you learn about something, it is not good to keep it to yourself. That way it means that thing is useless. Whatever you learn today, let others learn from you so that the community at large benefits from what only one person learnt…" (TAUN16).* *"What makes me share what I learn from here is that other people to also start using the telecentre so that they benefit because I see how I used to be before using it and want others to benefit also" (TAUN14).*
If only one person is knowledgeable, the community would suffer.	*"It is because a person does not stay in one place forever. You change places. For example, I have already said that I am a student. So, sometimes I do go to school for 2 terms, six months. Therefore, those people I do write letters for in the community, they have no one to do for them when I am away. So, I think it is important that I should teach others so that whenever I am not around, those people should be able to perform the same tasks I was performing whilst I was here" (TAUN11).* *"What makes me continue helping people is that I want these people to be*

	knowledgeable in using technology because as I have already said that if you know something and something and you are not around, something urgent happens yet you are not around it means no one would be able to handle that because you did not teach others" (TAUN13).

Beneficiaries' Willingness to Learn

Willingness in the beneficiaries and the need for help played a role in extending empowerment benefits to the community. Users were empowering the people who had approached them for help. Some comments on this included:

"I do help people who approach me. I cannot say everyone but those who approach me" (TAUN2).

"I also help people who are not my friends as long as they come to me to ask for help… When they ask me, I explain to them how that works" (TAUN13).

Willingness in beneficiaries also played a role in empowerment as users were helping the people who were interested in learning about something. One user said:

"Sometimes [the people I help] are the people who are interested in learning about something. Even if I do not know them, as long as they want to learn I help them" (TAUN5).

Indeed, interviews with indirect beneficiaries indicated that their willingness helped in benefiting from users. For example, one indirect beneficiary, who had learnt computers from her sister indicated that she learnt that when she was curious about computers. She said:

"I was curious about what she was doing, I could see her typing, writing things and sending them I was like aah I can also do this. That is when I said how can I write my name? She told me do this and that then I realised I was able to do that. Though I have not reached where I wanted but it is helping me a lot because I did not know anything. I am even able to play games [on computer]" (TAIDBN4).

Another indirect beneficiary who learnt from his friend and colleague echoed this by indicating that he only got helped when he made efforts in approaching his friend and colleague for help as evident in the following comment:

"Like me personally, I did not know Facebook and I used to ask […TAIDBN10] that if I want to use Facebook how do I do it? What about WhatsApp? And Internet? So, he

could say 'ooh this is how we do it'. And teaching me has helped a lot of people because I have also taught other people" (TAIDBN14).

From the comment by TAIDBN14, it can also be deduced that some of the indirect beneficiaries that had benefited from the empowered users were also able to empower others e.g. through teaching others (families) on how to use computers and sharing information as explained by TAIDBN14. Some other indirect beneficiaries also indicated the same although I was not able to gather this from the ones who had benefited from the indirect beneficiaries. This, therefore, implies that the empowerment benefits of telecentres do not end at users' immediate beneficiaries but rather, go beyond them.

Users' Desire for Personal Advancement

Users' personal benefits assist in community empowerment. There was evidence that users helped others due to personal growth, exposing themselves for prospects or future opportunities, to get the same help in future. Table 22 shows examples on these aspects of users' personal benefits as an enabler for community empowerment.

Personal growth helped users empower their community because users help others for their own growth. Users believed that when others approached them for help, they brought some information they would not have which would eventually increase their knowledge base. Furthermore, users believed that when they helped others by teaching computers, that act would help them by, for example, refreshing their memory and increase computer skills. For example, one user explained:

"There are different applications on the computer. There are things that I have been taught and others that I have not been taught about. As long as I am teaching, I am able to learn because you say they want to learn about this, yet I do not know about this. So, what should I do? So, that forces you to learn also" (TAUN2).

Table 22: Users' Personal Benefits as an Enabler of Community Empowerment

Aspects of users' personal benefits	**Exemplary quotes**
Personal growth	*"There are different applications on the computer. There are things that I have been taught and others that I have not been taught. As long as I am teaching, I am able to learn because you say they want to learn*

	about this, yet I do not know about this. So, what should I do? So, that forces you to learn also" (TAUN2). *"When people come to me, they do come with a lot of information because they know they will be helped. With that, I feel that they are also helping me to improve my knowledge and that I am using my knowledge" (TAUN10).* *"It is a very big opportunity to teach someone, when you learn something and just keep it to yourself. It is not on. You need to share with others that this is how things work and when you do this you benefit a lot" (TAIDBN4).*
Empowering others with an aim of exposing oneself for prospects	*"I have already mentioned that I have not finished school. I am finishing my studies any time soon so I will expose myself to other people. So that some other time when I want to do something people will say he is already there. So, I will not have problems" (TAUN18).*
Reciprocity	*"As I already said that it is important to me because I know that when I have come up with something, those people will help me in return if they are human enough" (TAUN18).*

Furthermore, users empower others with an aim of exposing themselves to prospects so that when, for example, they open their own café or finish their studies people will have already known them and offer them support. Personal benefits of users also enabled community empowerment as users helped others in the community with the aim of getting the same help in case they face a problem in future, a concept likened to reciprocity. According to users, this was possible *"because when you love someone [and help them] they may be able to do the same thing [help you] when you equally experience a problem in the near future" (TAUN9).*

5.9. Inhibitors of Community Empowerment

The results show that the effectiveness of telecentres on community empowerment is hindered by several factors. These factors hindered users in the process of empowerment; and in accessing the services from the telecentre. I put these factors into four main categories: limited resources, psychological barriers, people's attitudes and structural factors.

Limited Availability of Resources

Limited resources which included lack of laptops, lack of money, limited of English language knowledge and low educational levels affected the community empowerment process. These limited resources concerned users as well as the community members. Table 23 indicates exemplary quotes under each of these facets and the following paragraphs explain each of these facets.

Table 23: Limited Resources as a Hindrance to Community Empowerment

Aspect of limited resources	Exemplary quotes
Lack of laptops	*"I myself do not have a laptop. So, I cannot go to some areas to teach the people. It is difficult" (TAUN11).*
Lack of money	*"... Sometimes it is hard to find money. Sometimes they [parents] say I am yet to be paid so I do not have money. So, for one to come here to access services on credit it is not on. Even at school they do send you back if you have not paid fees. One feels guilty to come without money" (TAUN5).* *"Another challenge is financial challenge. Sometimes you are willing to go somewhere to empower people, to teach people about what I know. But if you do not have transport and the like, you fail to go and help those people" (TAUN11).*
Low educational levels	*"One of the barriers [to community empowerment] is that in this rural community, many people did not go to school. So, to explain something to them is always difficult" (TAUN13).* *"Mainly, because the community has different categories of people. Some are educated while some have never attended any form of education. So, for the ones who have never gone to school it is difficult for them to grasp the contents when you are teaching them" (TAUN11).*
Limited knowledge of English	*"Of course, the thing is, especially to do with computer, people in the rural areas we do not know that these things are in English and other languages. So, when there is something for example [laughter], you are telling someone about something, they would want to do that in their language. Despite you telling them in that language [on computer]. So, that affects me in explaining well" (TAUN2).*

Lack of laptops made some users not to empower the community. It seems some users failed to teach others in the community because they did not own computers. For example, TAUN1 *"[had] not taught anyone [in the community] because I currently do not have a computer".* *Lack of money* for buying computing equipment hindered users from reaching out to more people in the community. Results indicate that though most users were willing to help more people, this was not possible as they lacked money for transport to take them to different places. Further to this, lack of money posed as a barrier to access services from the telecentre. Almost all services in the telecentre have a fee. Moreover, lack of money and laptops as a barrier to empowerment is understandable given the low-income levels of users as evident in Table 17, and low-income levels of the rural communities in general a point already emphasised in sections above.

Limited resources were also reflected in *low educational levels* especially of community members. Some users complained that it was difficult to teach some community members whose educational levels were low because "*to explain something to them is always difficult" (TAUN13).* This also made it difficult for the indirect beneficiaries to grasp concepts. Indeed, literacy levels in rural Malawi are low (Kapondera & Chigona 2018). Low educational levels could pose as a challenge because "e*ducation brings understanding" (TAUN16).* The other facet of limited resources was limited knowledge of English language. This could also be linked to the low literacy levels in the community. This hindered community empowerment especially when users were teaching ICTs. This could also be linked to the fact that computers use and most information on Intern is in English language.

People's Attitudes

The other category of inhibiting factors had to do with people's attitudes. These factors included lack of appreciation, discouraging comments, and lack of interest among indirect beneficiaries.

Firstly, there was lack of appreciation of the role of the telecentre in the community. This, sometimes, was due to the low educational level that characterises most rural communities in Malawi, a point already alluded to. For example, one user explained that:

> *"Some of the barriers are relatives and the elderly that did not go far with their education and do not have access to computers. So, these undermine the importance of computers. They take them as useless things. Maybe because they do not have plans to buy computers. Sometimes it is because they have not gone far with education, so the computers are English things" (TAUN1).*

Discouraging comments by some community members hindered users from empowering their communities. For example, TAUN12 complained that: "s*ome people say that aah there is no difference between studying from the telecentre and from home. So, this becomes discouraging."* Another user had the same sentiments. In extending this, her comment indicates that, just as with lack of appreciation, people make discouraging comments because of ignorance of the benefits of the telecentres. Therefore, more effort needs to be invested in raising awareness of benefits of the telecentre in the community. She complained:

"Like castigating comments. Maybe because they do not know the role of the telecentre in the community, so they think we have nothing to do, which is why we come here, just to waste time. Some even say that we come here to look for men [laughter], see? That is how people talk" (TAUN5).

In addition, there was lack of interest among indirect beneficiaries. It seems this was common among the elderly who think that computers are not necessary at their age. As evident in the following comment:

"Firstly, we meet people who lack interest. You can reach out to, a couple of times but they lack interest. That is the main problem we meet. Mmh, many people when you tell them about the benefits of the telecentre, their response go like 'aah it is not important to me. At my age, as old as I am and should learn about ICTs? What will I use it for I am just counting my days on earth?" (TAUN15).

Psychological Barriers

There were inhibiting factors that concerned the state of the mind. I label these as psychological barriers. Specifically, some indirect beneficiaries lacked courage to ask for help. This may be because users are also able to help beneficiaries willing to ask for help as discussed above. Therefore, lack of courage to ask for help affected empowerment because users could not know if the indirect beneficiaries needed help or not. One user complained:

"Sometimes people are shy to approach you for help. So, they think yesterday I was there for help, and today I should go there again. So, that one is a barrier because they are not courageous to ask for help time and again thinking we would perceive them as dumb" (TAUN10).

It can also be argued that beneficiaries that who show willingness have a sense of choice which is a sign of some form of empowerment.

Structural Factors

The other group of inhibiting factors to community empowerment concerned the infrastructure and structures that enable the delivery of the telecentre services. I call these structural factors. There were two main structural factors: unreliable power supply; and poor internet connectivity.

For reliable power supply, the whole Malawi relies on power supplied by Electricity Supply Corporation of Malawi (ESCOM). In the past few years, the power supplied by ESCOM has been unreliable as some parts can even experience power for just 5 hours a day. This has affected several businesses. Results from Telecentre A show that this unreliable power serves as an inhibiting factor to community empowerment. One of the users complained that "…. *problem is power. Sometimes there is no electricity. So, we do fail to access the services" (TAUN5).* Field notes also indicate that some of the days I visited the telecentre, the power went off for a few hours. Previous studies on telecentres in Malawi also found that unreliable power supply is one of the main challenges that telecentres face in the country (Kapondera & Hart 2016; Kapondera & Chigona 2017). An alternative power supply such as generators or from green sources such as solar would be helpful.

Slow internet connectivity acted as a barrier to community empowerment because it negatively affected accessibility of services within the telecentre. During the fieldwork, the router that was being used was not functioning. Therefore, the telecentre only relied on a dongle. This could have contributed to the slow internet connectivity. In the end, it acted as a barrier in accessing telecentre services as users could be even be sent back to come another day.

5.10. Users' Support Towards Telecentre

One interesting theme that emerged from data collected from telecentre A is concerned with users' support towards the telecentre. That is, just as the telecentre supports users by empowering them, users, in return support the telecentre as follows: sustainability and security provision. Table 24 shows the aspects on sustainability that are: financial assistance and attracting users; and aspects of security provision which are not vandalising the telecentre, serving as security guards, and taking care of and not stealing the equipment. As falling under the main aggregate of "users' support towards telecentre". Furthermore, the table also helps in understanding how I moved from participants quotes, 1st order themes, 2nd order themes and eventually aggregate dimension.

Sustainability

Users contribute to sustainability of the telecentre by supporting the telecentre *financially*. This was through the money they paid for the services. Users were also helping the telecentre financially by not just paying for services they accessed but also paying for immediate family to access services. Users felt that the same money was used to maintain and keep the telecentre running by, for example, using the same money in fixing faulty equipment and buying consumables like papers. For example, one said that for them "*to come and use the services, we pay a fee. That money is used in buying and fixing things" (TAUN5).* As already alluded to, the telecentre sustains itself from the money realised from the services. Therefore, it is understandable to see users viewing and considering themselves important in contributing to the sustainability of the telecentre through the payments for the services.

Users also contributed to the sustainability of the telecentre *attracting users to the Telecentre*. This was done by telling them of the existence of the telecentre and its services which, eventually, attracted other community members to the telecentre. Some users further extended by saying that further to telling people of the existence of the telecentre, they told people of the benefits of using the telecentre and people started using the telecentre as evident in the following comment:

> *"I also tell people, like marketing, right? That there is a telecentre in our community, a very good one if you can come and you can use it. So, these people do come and use the telecentre" (TAUN11).*

These results explain why many users indicated that they empower the community by raising awareness of the telecentre as discussed above. Thus, in the process of empowering other community members, the users were also contributing to the sustainability of the telecentre. The results in this section also collaborate well with how users started using the telecentre as many indicated that they had heard from people as already alluded to in some sections above.

Security Provision

Crime rates in Malawi are moderate and tend to be high in areas where unemployment rates are high (Sidebottom 2018). As such, institutions and people take precaution measures in taking care of their facilities. Similarly, the telecentre does the same. Results from Telecentre

A indicate that apart from the telecentre employing its security measures, users also play their role. Firstly, they do not vandalize the property. One user said:

> *"I can say is that I help the telecentre to be looking good. When I say it continues looking good, I mean things found in the telecentre. For example, thieves coming to steal glasses, rovers or computers. So, I make sure I help because I am one of the people who are not vandalising like rovers of taking chairs or computer mouse etc……" (TAUN10).*

In addition, users provide security by keeping an eye on whosever visits the telecentre and is suspected to have ill intentions. Finally, users contribute to security provision by taking care of the equipment such as computers and books in the library by not destroying or stealing them within the telecentre. One user said "*I have helped the telecentre by taking care of its equipment. When I use the equipment, I do put it back and I do not destroy the equipment in the telecentre" (TAUN12).* Another user extended by adding that users do take care of the equipment so that more people including the next generations should use it. She said:

> *"Also, when we are using especially computer or library, we make sure that we are using the facilities with caution, we do not destroy the properties so that even the next generations has a chance to use them" (TAUN5).*

Table 24: Users' Support Towards the Telecentre

Exemplary quotes	**1st order**	**2nd order**
"I do help the telecentre in the sense that when I partake in computer lessons, I do pay a little something. That littles something helps the telecentre in fixing computers when faulty so that next time we come we should find working computers" (TAUN6). *"Right now, my girlfriend comes here to learn more about computers and this and that; and I am paying at this place. Eeh paying for her to learn and all that stuff" (TAUN17).*	Financial assistance	**Telecentre's sustainability**
"I have helped the telecentre by making sure that people are using the telecentre because I do tell other people of the benefits of using the telecentre" (TAUN6). *"One way I through which I help the telecentre is through advertising because I know the benefits of using the telecentre and I help it by telling people about it and what we learn from here. This helps to attract more people" (TAUN13).* *"When one uses the telecentre and finds it beneficial and tell your friends it means you have attracted people who will also contribute some money when they use the services" (TAUN2).*	Attracting people to the telecentre	
"I can say is that I help the telecentre to be looking good. When I say it continues looking good, I mean things found in the telecentre. For example, thieves coming to steal glasses, rovers or computers. So, I make sure I help because I am one	Not vandalizing the telecentre	Security provision

of the people who are not vandalising like rovers of taking chairs or computer mouse etc……" (TAUN10).		
"We make sure that there is security here [telecentre]. Of course, the telecentre has its own security but as an individual one ought to be provide security as well. Having an eye on people. Some people who come here have ill intentions. So, we watch them closely so that they do not get anything from the telecentre" (TAUN5).	Serving as watchmen	
"Also, when we are using especially computer or library, we make sure that we are using the facilities with caution, we do not destroy the properties so that even the next generations has a chance to use them" (TAUN5). *"We are advised to use the books within. If we were stealing then the telecentre would not have a single book" (TAUN1).*	Taking care of and not stealing the equipment	

It can be said that the support that users rendered towards the telecentre were mostly to do with sustainability. Users supported the telecentre financially so that it could use the money in running its day-to-day activities. Similarly, they were attracting more users to the telecentre so that the telecentre keeps operating. Furthermore, users were taking care of the telecentre and its equipment so that it could operate for a long period.

5.11. Emerging Framework for Understanding Effects of Telecentres on Community Empowerment

Figure 11 is a framework that comes from all the themes discussed in this chapter. The first part of it has already been discussed in the previous sections above (refer to Figure 10). The focus in this section is to show the framework that captures the factors that enable and hinder empowerment effects of the telecentre on the community. Arrows D and E represent these factors.

Findings show that when users access the services from the telecentre, they get empowered. These, afterwards, empower the community at micro and macro levels. The types of these levels of empowerment have already been discussed and presented in Figure 10.

The conversion of telecentre users' individual empowerment to community empowerment is enabled by a number of factors. This is represented by Arrow D. The factors include: sense of community, social cohesion; willingness of beneficiaries and users' personal benefits. *Social cohesion* helps in empowering the community. The empowered users help the ones that they are connected to such as family and friends; and users help people because they are friendly.

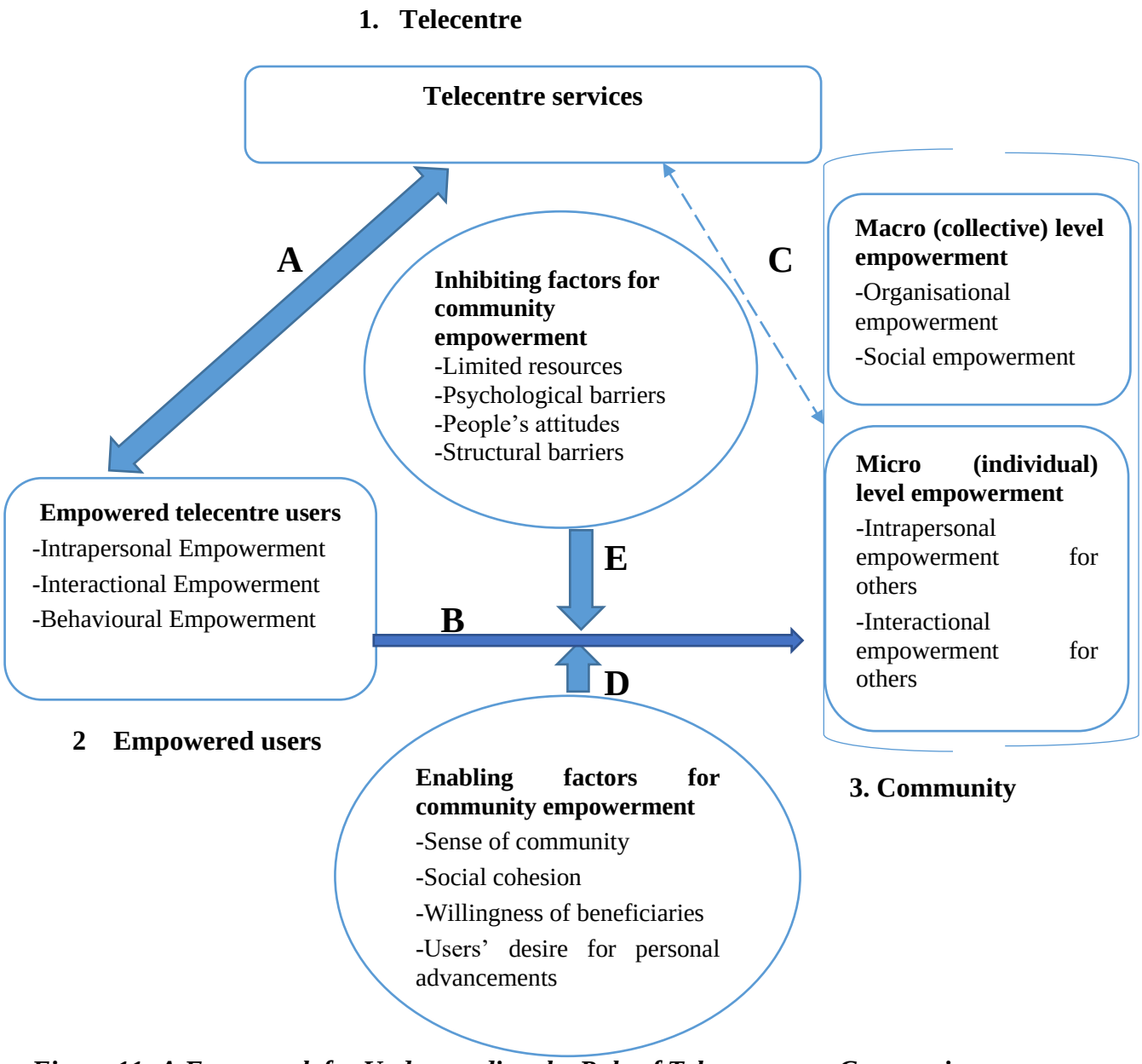

Figure 11: A Framework for Understanding the Role of Telecentres on Community Empowerment

NB: *-Straight arrows indicate direct relationship between the concepts.*
-Dashed arrow indicates indirect relationship between the concepts.
-The arrows do not represent any sequence but rather the relationship between the concepts in the framework

Through *sense of community*, users help people because they feel that that more than one person is required to work easily and quickly. They also empower the community out of love; so that everyone should be knowledgeable; because of the feeling that the benefits of the

telecentre should be widespread; and that if only one person is knowledgeable then the community would suffer in their absence.

The other enabling factor for community empowerment is *willingness of beneficiaries*. This enables community empowerment because users help those who approach them for help such as asking users to teach them computers; and that users help those who are interested in learning. *Users' desire for personal advancements* also aid in community empowerment due to the fact that users help for their own growth such as increasing skills through teaching; to expose themselves for prospects; and for reciprocity mainly to receive the same favour when they experience a problem.

On the other hand, the conversion of the individual empowerment is also hindered by factors represented by Arrow E. These factors include *limited resources* such as lack of laptops and money; low educational levels of community members; and limited competence in English language among the indirect beneficiaries. *People's attitudes* including people not appreciating the role of the telecentre, negative and discouraging comments from the community; lack of interest and appreciation; lack of courage to ask for help also hinders community empowerment. Furthermore, *structural barriers* such as unreliable electricity and slow internet connectivity pose as barriers to community empowerment. Finally, *psychological factors* such as lack of courage among beneficiaries to ask for help also inhibit users in empowering their communities. These factors also hinder the empowered users in accessing the services from the telecentre. The empowered users still access the services and face challenges in the process which, in the end, negatively affects how they empower the community. For example, users would need to access services yet when they do not have money they fail to. Finally, when users access the services from the telecentre, they render support towards it which, eventually, leads to sustainability of the telecentre. The support is in form of security provision, financial assistance that comes from the payment of the services; and attracting people to the telecentre. In the Framework, this is represented by a double Arrow A which indicates mutual relationship between telecentre and empowered users.

5.12. Chapter Conclusion

The aim of this chapter was to present an analysis of data from Telecentre A that were collected through FGDs, interviews and observations with an aim of understanding the role of telecentres in empowering rural communities. The chapter started with describing the case by providing the telecentre's background information. The chapter described the demographics of the participants. It later presented data

Looking at the themes emerging from the data analysis done for Telecentre A, it can be concluded that:

- Telecentre users get empowered after using the telecentre services.
- Users empower their communities both at micro (individual) and macro (collective) levels.
- Users' empowerment of the community is enabled by a myriad of factors.
- A number of factors hinder community empowerment.
- Users render support towards the telecentre.

In the next chapter, I will present the findings from Telecentre B.

CHAPTER SIX: DATA ANALYSIS FOR TELECENTRE B

6.1. Introduction

In this chapter, I present data collected from Telecentre B. The first section describes the case by giving its background, the catchment area, the services it offers, etc. The chapter later gives a description of the demographics of the participants before presenting the data. Mainly, six themes emerged from the data collected at Telecentre B. These include: Telecentre's influence on users (empowered users); empowered users influencing community empowerment at micro (individual) level; empowered users influencing community empowerment at macro (collective) level; enablers of community empowerment; inhibitors of community empowerment; and user's support towards telecentre. To preserve anonymity, I use prefix TBUN for Telecentre B User Number; and prefix TBIDBN for Telecentre B Indirect Beneficiary Number.

6.2. Case Description

Telecentre B is managed by entrepreneurs thereby falling under the 'entrepreneurship' model of telecentres. Like all telecentres in Malawi, the Government of Malawi through MACRA established the telecentre with the aim of bridging the digital divide in the country. The government provided ICT equipment such as computers, printers and a photocopier. The government later identified entrepreneurs who could run the business and it later handed over the telecentre to them. These entrepreneurs were identified by the District Council who aimed at handing over the project to people who were already in the ICT services such as providing photocopying and printing services. These included two entrepreneurs one of which had already been into stationery business particularly selling stationery such as books and providing photocopying services in the community. Just as with other types of telecentres, during the first few years of its operation, the entrepreneurs got some financial support from the government such as money for fixing faulty equipment before they were weaned off to be solely depending on their own.

Telecentre B is in the Southern Region of Malawi. It is located at the centre of the township of the district in which it is established. The township is characterised by single story houses, earth roads, old cotton ginneries; bottle stores and supermarkets. The township is about 207

Kilometres from Lilongwe, the capital. Figure 12 is map of Malawi showing the location of the telecentre and where I live.

Figure 12: Location of Telecentre B on Map of Malawi

Telecentre B equally started operating in 2010. Although Telecentre B is in a relatively small township, just like where Telecentre A is, the area equally has poor roads and limited access to electricity. For example, during the data collection, I was putting up at my aunt's house which is less than a kilometre from the telecentre and we experienced power outages almost daily.

Being in a relatively small township, the telecentre serves people from all walks of life and from different areas. The main services offered in the telecentre include internet, computer tutorials which run for seven days, photocopying and scanning. Table 25 indicates the

services and their charges. Field notes also indicate that on Tuesdays and Thursdays, the telecentre is used for meetings for Select Save organisation, an organisation which is in financing like but uses the telecentre for its meetings twice a week.

Table 25: Telecentre B Services and their Charges

Services	**Charge (MK)**
Photocopy	20 per page
Printing	50 per page
Scanning	200/page
Internet	20/minute
Computer lessons	5000 per package (for seven days)

NB: £1=MK972.33
1$=MK751.50

Due to the limited number of services that it offers, the telecentre could be considered as basic telecentre. There are also a couple of cybercafés in the area most of which started when the telecentre was already in operation. Furthermore, there are also stationery shops which mainly offer photocopying and printing services like where TBUN14 works. However, field notes indicate the Telecentre offers services at relatively lower costs as compared to the alternatives. For example, one of the stationery shops I visited offers photocopying services at MK30 (£0.033) per page while, as shown in Table 25, the same service is accessed at MK20 (£0.022) per page.

On average, 20 people visit the telecentre a day. Most of these people come to access Internet. A good number were also seen coming to the telecentre for photocopying and printing services. It was also observed that even one person could be taught computer tutorials as long as they were ready. The telecentre opens from 8AM to 5PM from Monday to Saturday.

People in this area are mainly business oriented. As such, every time spent on something counts to them. Due to that, participants at Telecentre B were expecting handouts after taking part in the study which was ethically wrong. Their expectation was also attributed to the fact that many organisations do visit this place for studies and give them money.

6.3. Demographic Characteristics of the Participants

Table 26 shows demographic characteristics of users and indirect beneficiaries based on gender, age, highest qualification, occupation and income levels. The majority of users were males and youthful with a small minority being above 45 years of age. As compared with users of Telecentre A, users of Telecentre B were relatively educated with at least three people holding a diploma and two with a Bachelors degree certificate unlike at Telecentre A where only one had a diploma and that served as highest qualification at that particular telecentre. The majority of users at Telecentre B were employed with only two being students; and had relatively higher incomes which was the opposite case at Telecentre A. As for indirect beneficiaries, the majority were males, youths, at least a secondary school qualification and businesspersons with low incomes though a good number of them earned more than MK80,000 (£89) a month.

Table 26: Demographics of participants at Telecentre B

		Users	**Indirect beneficiaries**
Gender	Male	10	6
	Female	6	3
Age	15-25	6	5
	26-35	3	3
	36-45	4	1
	46-55	1	-
	56-65	1	-
	66-75	0	-
	76-85	1	-
Highest qualification	Primary school drop out	0	-
	Primary school certificate	0	3
	Junior Secondary School certificate	4	1
	Secondary School Certificate	6	3
	O level	1	0
	Tertiary education certificate	0	1
	Diploma	3	1
	Bachelors' degree	2	0
Occupation	Secondary school student	2	2
	Tertiary education student	0	-
	School leaver	2	1
	Housewife	0	1
	Farmer	0	-
	Employed	8	1
	Businessperson	3	3
	Pastor	1	-
	Piece work	-	1

Income per month	<5000	1	1
	5000-10000	3	1
	10001-20000	1	1
	20001-30000	2	1
	30001-40000	0	1
	40001-50000	2	1
	50001-60000	2	-
	60001-70000	1	-
	70001-80000	0	-
	80001-125000	0	1
	125000-200000	2	1
	>200000	2	1

NB: £1=MK972.33
1$=MK751.50

6.4. Telecentre's Influence in Empowering Users (Empowered Users)

As stated throughout the thesis, this study aims at understanding how empowered users have been empowering rural communities. The telecentre manager was presented with some criteria for choosing the empowered users (such as meaningfulness; impact, leadership skills, see Chapter 3 and Chapter 4 for details); and the manager was allowed to choose empowered users based on his understanding of the concept of empowerment. This procedure assumed that the selected users were empowered. Nevertheless, I asked users on how they had been empowered by using the telecentre. The empowerment at this level is considered as individual empowerment. Evidence of user empowerment has been put in six distinct categories: career development; learning and self-development; social status and interactions/relationships; leadership development; community participation and psychological skills. These categories have been further classified into three types of individual empowerment: intrapersonal empowerment; interactional empowerment and behavioural empowerment. The following paragraphs explain and provide evidence under each of these forms of empowerment.

6.4.1. Intrapersonal Empowerment

Telecentre B contributed towards intrapersonal empowerment of users. Thus, the use of Telecentre B improved the way users view and think of themselves. This was reflected in two forms: psychological skills and learning and self-development.

Psychological Skills

Psychological skills are skills or tools of the mind. Among others, these include self-confidence, self-esteem and goal setting (Eastern Washington University 2020). Evidence from Telecentre B shows that users were empowered by gaining psychological skills. These skills were improved by the telecentre increasing confidence of users. For example, one user indicated that learning computer skills in the telecentre helped him gain confidence such that he could stand in front of people which was not the case previously. He said:

> *"I would say that to improve because of the confidence, that thing [telecentre] when you learn, you can even stand in front of friends and say something with confidence. Without which one cannot do. So, mine has improved after learning computers there [telecentre]" (TBUN9).*

Learning and Self-development

One other form of intrapersonal empowerment of telecentre users concerned learning and self-development. According to Osman and Tanner (2017), self-development is an ability of telecentre users in overcoming old habits or learning new things and skills. Therefore, in this study, learning and self-development refer to skills that one uses in learning developing one's life. It is also about something one finds that they can use in developing themselves such as money. Many users' responses revolved around learning and self-development being the main form of empowerment. The aspects include using telecentres to increase ICT skills and increase finances. These aspects and exemplary quotes on each of these aspects are given in Table 27.

As evidenced by the majority of the users, the main aspect of learning and self-development skills is that using telecentres increased ICT skills or competence. Many users indicated that before using the telecentre, they did not know how to use ICTs such as computers and other ICTs. However, this has greatly improved. This has helped improve how users view and think of themselves. Furthermore, these ICT skills are being applied in their activities. For example, one user whose job is about repairing phones for people indicated that the ICT skills he acquired from the telecentre are helping him in his job. He said: *"I have really seen improvements on my part. I am able to fix problems encountered on a particular day…"*

(TAUN12). For some users, they did not even know how to type but now they know, thanks to the telecentre. The ability to type has helped some users to save money. In the past they used to spend it on people hired to type on their behalf as evident in the following comment:

> *"I learnt how to use ICTs… No. typing. I did not know how to type and sometimes I could send people to do on my behalf and had to be paying them which made me spend a lot of money yet now I am able to do [type] myself…" (TBUN9).*

There was evidence that increased ICT skills helped in not only increasing ICT competence but also increasing ICT confidence which Attwood et al. (2013) define as the confidence or assurance of telecentre users in relation with personal judgement and ICT abilities. For example, when users had known how to operate the computers, they were able "*to explain [ICT] things to a friend*" (TBUN9). Therefore, it was not surprising to note that several users were involved in teaching other people computers as explained in a later section.

Table 27: Aspects of Learning and Self-development

Aspects of learning and self-development	**Exemplary quote(s*)***
Gaining ICT skills	*"Aaah the telecentre has helped me as I have already explained that there some things I did not know about. But now people come to me to help them. That is why I have explained that at first I was not conversant with Internet but when I started working there that is when I learnt about this that this is how we do it" (TBUN14).* *"Mmh the way the telecentre has helped me on my part I would say, it is about knowing how to operate computers. It has also helped on the part of my family because sometimes when something happens that requires a computer, I do come to the telecentre. Aah not that I did formal computer studies but I learnt though the same way [by working at the telecentre]" (TBUN4).*
Increased finances	*"It helped me that time like this, aah, my finances, I was not getting much but through the telecentre helped me" (TBUN1).*

Furthermore, the telecentre helped in increasing individual finances. This was true for those people who once worked in the telecentre and got paid at the end of the month. Furthermore, increased finances aspect was perceived by those who, after acquiring ICT skills, applied the skills in their work and gained more money. For instance, one user who repairs phones for others and continuously learns how to repair phones by visiting the telecentre indicated that

the telecentre helped in increasing finances. The same money was useful to carter for things in his daily life. He said:

> *"[when I fix phones] I am able to find a little something that helps in my daily life. My life has improved somehow through the telecentre as I am now able to do things I was unable to do previously. I just come to the telecentre. This helps in my daily life as through the money I find, I am able to put bread on my table" (TBUN12).*

6.4.2. Interactional Empowerment

There was evidence that Telecentre B helped in enhancing interactional empowerment of users. This is in three ways as discussed in the paragraphs that follow.

Career Development

Usage of Telecentre B helped in career development in two ways: creation of employment opportunities and helping in shaping plans. Table 28 gives some quotes under each aspect.

Table 28: Aspects of Career Development

Aspects of career development	**Exemplary quote(s)**
Employment opportunities	*"That was when I said I worked for [not clear]. So, I did not know that I had been invited for interviews, I came here to chat. Then I said let me check my email and saw that I was supposed to attend interview the following day. So, I stayed here to research to know some things before the interviews. So, yeah, I got there and was picked for the job. So, yeah. That is what I meant" (TBUN5)*
Using the telecentre helps shape plans	*"Aaah through my experience as I have already explained, my plan is to open my own office [cybercafé]. Right? And that is my plan. So, I will be using the experience from there [the telecentre] because nothing can go wrong. Next year I want to open my own office. Yes. So, currently I am planning that I will have my own Internet café in this community. So that I can be teaching people through that. Some people who look for me they will be easily finding me" (BUN14).*

There was evidence that use of the telecentre created employment opportunities. Specifically, some users used the internet within the telecentre to access information on job opportunities. After applying for such jobs, they got employed, thanks to the telecentre. For example, one user said: *"Aah. It has helped me because when I was in the telecentre, I was able to search*

for information on companies [where to get employed]. So, this helped me get a job through the same telecentre" (TBUN1). The telecentre also helped in the creation of employment opportunities by helping users to access emails. One user explained that after applying for a job, she went to the telecentre to check emails and found that she had been invited to an interview, in which she eventually was successful. When I asked if she could not check the emails through the phone since she had a smartphone, the user said that it was cheaper to access such services within the telecentre than with her phone thereby making telecentres relevant in the era of mobile technologies. She said:

> *"Basically, [I started using the telecentre] when I wanted to send emails. My email was so big for a small phone. So, my aunt referred me here. …So, that is when I found myself here. Then I got used to coming here to check emails, to send emails. Right? Just as I have said I do come here to send email because sometimes I find myself not having data in my phone. So, I know that when I come to the telecentre, eeh I will spend 10 minutes to check on email with MK100 (£0.11) which is just fine. So, that is why I do use it" (TBUN5).*

The cost of data bundles is relatively expensive in line with users' income levels presented in Section 6.3 above. For example, the cheapest data bundle by one internet service provider costs K2500 (£2.79) for 1GB that lasts for one week. Therefore, accessing the internet and email services at the telecentre when one has a smartphone is understandable.

The other form of career development is telecentres helping shape plans. One user who had worked in the telecentre before and currently uses the telecentre indicated he has plans to open a cybercafé. He would use the experience he has acquired through working and using the telecentre in the cybercafé that will help him teach people. According to him, *"some people who look for … [him] they will be easily finding … [him]" (BUN14).*

Leadership Development

There was evidence that usage of and working in the telecentre helped in earning leadership positions in the community. Particularly, the ones who once worked in the telecentre and continued using the telecentre were known in the community and were entrusted with

leadership positions in various sectors such as in churches and other groups. Furthermore, when they moved to a different workplace, users were given management positions of the cybercafés. Some responses on this included:

"Yeah. Aah. The telecentre has helped me in leadership in my community, especially at church. I was not able to hold any position but just because I was once working at the telecentre and that now many people know me they are able to elect me as a leader at church" (TBUN1).

"About leadership, it has helped me improve leadership because whenever people see me they know that I was working in the telecentre and they know that I would be in the know of some particular things and can lead us on some particular things…" (TBUN4).

Students in their schools also gained leadership positions. For some, after using the telecentre to access information on the internet, they became active in class. As such, they were elected as prefects since they were deemed to have confidence that they can speak in front of people and can lead others. For example, one user, a secondary student said:

"At St. Louis I was elected as sports prefect. As I am talking to you, I am a sports prefect. This was possible because after using the telecentre, when in class, when the teacher is teaching and asking questions, I was able to answer most questions. So, that ability to stand in class and answer questions was rare. Not everyone can do it and I was able to do it thanks to the telecentre. so, I was later chosen a prefect…" (TBUN6).

Social Status and Interactions/Relationships

There were changes that concerned one's position in the society and how users interacted with others. I label these as social status and interactions/relationships**.** Basically, they were two of them: increased status symbol and increased social relationships as depicted in Table 29. There was evidence that the telecentre helped increasing social ties. Particularly, through interaction at the telecentre, some people were able to know others and build relationships with them, which, eventually, helped them acquire various things that one benefits from friends or relatives such as owning land.

Status symbol could be considered as some form of increased prestige in the community. It denotes a person's high social and or economic standing (Cheuk, Atang & Lo 2012). In this study, status symbol is about the way people viewed and regarded users in the community. It seems that after using the telecentre, users gained fame in their communities such that they could be relied on for particular work such as accessing services on others' behalf including those who could not afford fixing phones; computers and distributing information on behalf of the chief within their communities. For example, one user said:

> *"In our community? Helping to distribute the message when the chief wants to do something. Of course, they sometimes, there are some things they just write letters. Just writing like what I would say, just typing, and giving us information [to distribute] so that people know that the chief wants them" (TBUN9).*

Table 29: Aspects of Social Status and Interaction/Relationships

Aspect of social status and interaction/relations	**Exemplary quote(s)**
Increased status symbol	*"The telecentre has helped me a lot because currently in Balaka when people know that John [not his real name] has been employed or you will find John working at such a place, whatever they want to be assisted with, I do. You see?... in Balaka many people know me." (TBUN14),* *"The telecentre has helped me because people home are able to approach me help them with phone issues and things to do with computers even designing cards" (TBUN4)* *"They are not my friends but whenever they have problems to do with IT, I do help. I am working with an NGO which is connected to Mulanje Hospital. So, people now know that I have such skills so they do come from the hospital such as doctors and clinicians" (TBUN13).*
Increased interactions/relations	*"The telecentre has helped me as someone working there as I was able to meet people. These could tell me that we have such and such things, would you love them? Now, I have a farmland that I found through the same telecentre. I was given this piece of land free of charge and I am farming on it" (TBUN1).*

6.4.3. Behavioural Empowerment

The usage of Telecentre B enabled users to experience behavioural empowerment. Thus, after using the telecentre, people were able to engage in activities that made positive changes on their communities. This mainly occurred through *community participation*.

Community participation is concerned with being involved in active citizenship through taking part in wider socio-political activities such as demonstrations and signing petition to positively change policy in a particular community (Petrič & Petrovčič 2014; Ahmad & Talib 2016). Community participation helped users of Telecentre B to be taking part in activities that aimed at bringing change in their communities. Specifically, evidence shows that when users used information on the internet in the telecentre, they were able to sign petitions on things that they wanted to change in their community and country at large. There were two examples on this. Firstly, one user participated in signing petitions preventing the Malawi Parliament from passing a bill on same sex marriage and delivered it to the office of the District Commissioner (DC). The user said:

> *"It was a petition against aah ma rights a minority like gays and lesbians. The parliament wanted to pass the bill that a person can get married to a person of the same sex. So, I remember in Balaka, I was one of the people who helped in organising the function which we marched in Balaka to deliver the petition [at the DC's Office]. Of course, it was a country-wide thing but in here in Balaka, I took part in the activity…. I was able to know the bad side of same-sex marriages…. Knowing why people are imposing Western things on us. So, such information helped us discuss and write together with people I was working together with on this particular issue" (TBUN13).*

The second example on empowering the community through community participation is also on signing petitions to make improvement on water problems in the community. However, this is not just about use of the information in the telecentre but also on the status symbol of users. After working in and using the telecentre, one participant became known in the community and, when she mobilised others and went to the village headman to suggest that the community had a borehole, her suggestion was respected because of her status symbol. In particular, the chiefs knew that she was working at the telecentre and held her in high esteem that they could take on board her suggestion. She said:

> *"Like we had water problems in this community. Therefore, when we came together, we could wake up in the middle of the night to fetch water travel long distance to find water. Therefore, I mobilised fellow community members to do something about it. Thereafter, the community members and I went to the chief and asked what to do with this water problem; I participated and delivered the petition. The borehole was drilled…. Aah because of the telecentre…church pastors/leaders and chiefs know me. So, in one way or*

the other that helped because they know that we already know this one. I think she is doing a right thing and beneficial. I think what she is doing is right and we need to do this. Yes, and this is possible because of the information I do get from the telecentre" (TBUN1).

6.5. Empowered Users Influencing Community Empowerment at Micro Level (Individual Empowerment of Community Members)

Evidence from Telecentre B shows that when users got empowered by the telecentre, that does not just end there but, rather, users later empower the community. This community empowerment takes place at two different levels: the micro and macro levels. In this section, I discuss the micro empowerment while the next section is dedicated to macro empowerment.

Results show that empowered users were empowering the micro community by empowering the individuals. These included some they were connected to such as relatives and those that they were not connected to but simply members of the community whom users deemed to be essential to benefit from them. Therefore, in this study, I also call the micro level empowerment as individual empowerment of community members.

6.5.1. Intrapersonal Empowerment for Others

Empowered users at Telecentre B influenced intrapersonal empowerment of others in two main forms: increased psychological skills of others and learning and development as discussed below.

Psychological Skills for Community Members

Psychological skills are skills or tools of the mind such as self-esteem, competence, confidence and goal setting (Eastern Washington University 2020). The evidence from Telecentre B indicates that users helped in improving such skills of others. In particular, users improved confidence of indirect beneficiaries. For example, one user claimed that when him and other people who were not using the telecentre decided to take part in stopping the Malawi Parliament from passing the bill on homosexuality, his friends were not confident enough. However, after explaining the negatives of passing the bill and homosexuality itself

to them using the information he got from the telecentre, his friends became confident enough and became activists like him. He said:

> *"When we were doing those things [petition to the DC], some people could feel [got interrupted by someone]. As I have already said, at first, some were afraid to do that but because of my support, their confidence was high. In addition, they actively participate because of the knowledge I gave them they realised that, that particular thing was possible. And the whole group, before we delivered the petition, we read it loudly which made them know that understand and know how things work" (TBUN13).*

Learning and Development for Others

Just like users got empowered by gaining learning and self-development skills through the telecentre, the indirect beneficiaries gained learning and development skills through the empowered users. This took place through teaching other people computers thereby increasing computer skills; paying school fees for indirect beneficiaries; vocation skills; gaining business management skills; increased finances; and sharing knowledge with and increased knowledge for others. Table 30 depicts exemplary quotes under each of these aspects.

Evidence shows that users helped in changing the other people's lives by teaching them how to use computers and other ICTs. This helped in increasing ICT skills and competence of the indirect beneficiaries which are important in the information society (OECD 2016). For some users, they taught others in the hope that when they gain those skills "a*nd if that person is kind enough will also be help to help others*" *(TBUN9)* which, eventually, would ensure that the benefits of the telecentre are widespread.

Table 30: Aspects of Learning and Development for Others

Aspect of learning and development for others	Exemplary quote(s)
Teaching others ICTs	*"Aah, sometimes when someone asks me of some things like IT skills, I remember I taught students who were about to go to university. I taught students, about 7 on computer basic skills. It was two week training. One hour every day" (TBUN13).* *"My children, just because of lack of resources, most of them did not know how to use computers….I teach some at home because I have a laptop. I teach them that this is how we operate computers and this is how we make use of Internet. Some are still young but I want them to have an idea. Some can switch it on, on their own. I know that on that part it [the telecentre] is helping a lot" (TBUN8).*
Paying school fees	*"When they visited us home, they saw that what my mother does for a living is brewing beer. She still brews beer. They also saw that brewing beer is not enough to support my education. To pay school fees for me" (TBIDBN7).*
Teaching/gaining vocational skills	*"And so far we are running a project we are aiming at rehabilitating about 300 ex-prisoners and so far we have managed to rehabilitate 165 and we are yet to rehabilitate the remaining 135 ex-prisoners. And we are running this programme, 60 beneficiaries each cohort. Yes. Yeah, aah we started I think 2017 for this particular project which we are running up to now. And it had helped a lot of young people. We go into Balaka, we go Lilongwe, we go to Blantyre you find some people doing welding such things and so on they learnt such traits here" (TBUN15).* *"What happened is that they had started a certain programme that aimed at helping ex-prisoners for them to go there and learn. So, it happened that I had just finished serving at the prison at the time they were looking for ex-convicts to go get trained like welding. … so, I went and joined the [Prison] Fellowship. So, I was there" (TBIDBN9).*
Gaining business management skills	*"Apart from the vocational skills, we were also able to learn about business and management. I still have those ideas in my head. Like how much profit I can make in a month and how to make that. I learnt all this from that place. Now, some people when they look at me now, they consider me as a boss" (TBIDBN8).*
Capital for business	*"I was given grinder and welding machine" (TBIDBN9).*
Sharing/gaining knowledge	*"That time I gained knowledge. Before then, I was playful and was not sure of the importance of education transitioning from primary school. Therefore, when they paid for my secondary school education, I realised that education helped me know many things. So, I continued until I completed form 4" (TBIDBN7).* *"Now, my life has changed far much better. Firstly, in terms of reasoning. I cannot be compared with someone who has never been to that place [Prison Fellowship]. My knowledge has improved and I now reason better" (TBIDBN8).*

When one of the indirect beneficiaries who was taught by his brother was approached, he confirmed to have gained the ICT skills. He said:

"*Ok. from him [my brother] I benefit a lot because I have not learned a lot concerning computers. I just try my best because of him. He helps me know various things. Like when some computer develops a fault, he tells me that this is fault is there because of this and that; and that this is how you can fix it... He helps me with such things" (TBIDBN2).*

One other interesting finding under this aspect is that some of the indirect beneficiaries who were taught how to use computers by telecentre users owned computers but did not know how to use them up until the telecentre empowered users taught them. For instance, one user claimed:

"I am able to teach others how to use computers. Like other people have the equipment but do not know how to use them. So, we are able to use them" (TBUN9).

Users contributed to learning and development skills of others by paying school fees. Particularly, one organisation aimed at helping the less privileged. The organisation used the telecentre by looking for information on and communicating with potential donors. Whenever they succeeded in getting funding, some of the funding could be used in sponsoring the students in the community especially those attaining secondary and tertiary education. One indirect beneficiary expressed his gratitude as he said:

"Let me put it this way. The owners of this organisation as you can see, they do not have the necessary equipment for communication. They do go to the telecentre to find donors. When they communicate with the donors [using the telecentre], when they get funding, they use that for paying school fees. Yes, they paid fees for me from secondary school to college up until when the donor passed on and said they the funding is not coming in anymore. So, we stopped there. But it has been helpful" (TBIDBN6).

In Malawi, only primary school education is free. Majority of Malawians cannot afford paying secondary school and tertiary education fees on their own. This, among others, has contributed to significant secondary school dropouts (Moussa 2016). Therefore, what emanated from the telecentre that pays school fees for the needy is of high importance.

Telecentre users empowered the community through vocational training and skills. This was true with one particular organisation, Prison Fellowship Malawi that aims at training ex-prisoners in various vocational skill such as carpentry and welding. The organisation was formed after users used the telecentre to search for potential donors/partners and write proposals which eventually attracted the funding. The organisation trains people in various vocational skills such as carpentry and joinery, and welding. For some of the beneficiaries of the program, it has even increased the skills they initially had as evident in the following comment:

> *"Then the only thing I could do was fixing bicycles but now I leave it to novices. Mmh, now, I do fix cars and I was taught how to able do that unlike previously when I was just doing it without special skills" (TBIDBN9).*

Indeed, when I visited his (TBIDBN9's) shop, I found him fixing a car as depicted in Figure 13.

Figure 13: One of Beneficiaries of Prison Fellowship Malawi (TBIDBN9) Fixing a Car Using the Skills and Resources from the Organisation

Learning and development of others also took place through gaining business management skills. One indirect beneficiary who had benefited from Prison Fellowship Malawi indicated that such business skills helped him in the running of his business because he "*still have those ideas in my head. Like how much profit can I make monthly, and how to make that? I learnt*

all this from that place. Now, some people when they look at me now, they consider me as a boss" (TBIDBN8).

The other aspect of learning and development of others is increased capital for businesses. The same organisation that empowered ex-prisoners with vocational skills and business management skills, equipped them with capital based on the type of the skills gained or program they participated in. This was to ensure that the ex-convicts put into practice what they acquired as soon as they graduated. In addition, to be independent as evident in the following comment by the program manager at the organisation:

> *"They [the ex-prisoners] are doing their own things to generate funds and some of them remarried and they are able to aah yes take care of the families" (TBUN15).*

Indeed, when approached, both ex-convicts indicated that they were financially independent and are growing using the capital given to them by the Prison Fellowship Malawi. For example, one of them indicated that apart from having the welding shop using the capital he was given, he has been able to open a shop which sales different items such as meat and spices. He also has another shop in a different location. He said:

> *"Of the things I was given, there was grinder, the welding machine and many other items like for safety. I also have another shop in Ntcheu. There is someone working for me there" (TBIDBN8).*

I conducted the interview in his shop and Figure 14 shows me admiring things in the shop. He has opened this shop in addition to having a welding shop.

Figure 14: One of the Shops Owned by the Prison Fellowship Malawi Beneficiary

Lastly, learning and self-development for others concerned sharing with and gaining knowledge. The evidence shows that empowered users shared knowledge with people. Such knowledge revolved around spiritual information i.e. the word of God; knowledge related to work such as for a legal practitioner and agricultural information. It seems the knowledge varied based on the type of activities that users engaged in. For example, in the comments below, one user who is a pastor, TBUN10, indicated that he accesses spiritual information within the telecentre and shares that within the community; while the other user, TBUN9, whose main activity is growing and selling plant seedlings indicated that he shares information on best practices in growing of seedlings:

"I have already stated that sometimes I am able to search information on spiritual life, the word of God, like I am able to find verses. e.g. Chapter 2 verse 11 says this. So, I do go around Balaka to spread the word of God. We are able to tell people that for you to know Jesus you need to do this. Sometimes I access some sermons where some pastor

somewhere was preaching. I use that to spread the word of God in other places and change people spiritually" (TBUN10).

"Sometimes one searches for information online and share that with others in one's community. I do share knowledge related to the seedlings I am growing" (TBUN9).

Some of indirect beneficiaries indicated that indeed they had gained knowledge through the empowered users. Specifically, this was to do with the education for those who were helped with school fees. In addition, the indirect beneficiaries had gained knowledge by improving reasoning skills. For example, one beneficiary of Malawi Prison Fellowship indicated that his reasoning skills improved after he got trained. He said:

"Now, my life has changed far much better. Firstly, in terms of reasoning. I cannot be compared with someone who has never been to that place [Prison Fellowship]. My knowledge has improved and I now reason better" (TBIDBN8).

6.5.2. Interactional Empowerment of community members

Results from Telecentre B show that empowered users contributed to interactional empowerment of community members in ways discussed below.

Career Development for Others

There was evidence that users contributed to career development of other people within the community. Specifically, this was done through creation of employment opportunities of others. When users taught others how to use computers, indirect beneficiaries were able to apply for jobs that required computer literacy such that some were successful. One user said:

"I have talked about employment. Some guys are unemployed but just because they were involved that period, they are able to come and apply for jobs. Some are successful in getting the jobs…" (TBUN13).

Secondly, career development was reflected in the indirect beneficiaries being able to employ others. Specifically, there were some people who had benefited from Prison Fellowship Malawi. These people benefited from the organisation through various vocational skills, business management skills, and capital for business (as explained in detail in a later section); and were able to start-up businesses and employ others. For example, one indirect beneficiary

who was into welding and shop businesses indicated that "*I have been able to change other people's lives by employing others" (TBIDBN8).* This implies that the empowerment effects of telecentres through users do not only have effects on immediate beneficiaries of empowered telecentre users but also on the immediate beneficiaries of those who benefit from telecentre users, thereby making telecentres have two groups of indirect beneficiaries when it comes to empowerment of the community which will be discussed more in the discussion chapter.

Critical Awareness

Critical awareness is about one being aware of what is happening in their communities and surrounding environment (Zimmerman 2000). In the context of telecentres, Osman and Tanner (2017) view critical awareness as how aware people especially users are of the existence of telecentres, their services and the potential benefits they can offer. In this study, I conceptualise critical awareness as being able to know of the existence of telecentres and their benefits as well as issues happening in one's community.

There was evidence that empowered users in turn empowered others in the community through critical awareness. This took place in two ways as depicted in Table 31. Firstly, users increased awareness of the telecentre services and their benefits. There was evidence that empowered users informed others of the benefits of the telecentre and advised them to be using them. For example, one user indicated that at some point, he advises others to be going to the telecentre to be assisted. He said: *"Sometimes I do tell people to go to the telecentre to be helped" (TBUN9).* In the end, this did not just help in increasing awareness among community members by also attracting others to the telecentre helped in increasing user base which leads to sustainability as explained in a later section.

Secondly, critical awareness was increased through users raising awareness of issues in the community and the world. For example, one user indicated that some of her neighbours did not have enough information on the xenophobia that was taking place in South Africa at that time. Her use of the telecentre where she could read about and discuss with others on the issue helped her in enlightening her neighbours. She said:

> *"Like a recent example, some xenophobia attacks so what used to happen home, I get home neighbours are talking about something else so I could tell them that aah this is*

not how things are but things are this way. I have read something else pa internet at telecentre and we were discussing with people when I was at telecentre. So, I come here for something and I socialise. It helps me socialise with people outside my home and work" (TBUN5).

Table 31: Aspects of Critical Awareness

Aspects of Critical Awareness	Exemplary quote(s)
Increasing awareness of the telecentre services and benefits	*"Sometimes I do tell people to go to the telecentre to be helped" (TBUN9).* *"In terms of families, sometimes vacancies, most of people are able to use Internet so I am able to tell them that there is this opportunity that you cannot apply for it using the phone but internet [in the telecentre]. So, through that many people are able to know that aah we are lagging behind. So, some have been able to apply for vacancies through that" (TBUN8)* *"I should just say that many people did not know about this telecentre and they did not know that it is beneficial but when it came and told them that eeh all it takes is for you to ask for the email address of the particular person and you can contact them whether they are in America or England" (TBUN11)* *"I have inspired a number of people that the use of the Internet, explaining to them. So, some people still ask me that for such type of a problem, how do you deal with it? Sometimes they ask, did you use a phone or what type of Internet did you use? I tell them that I used the telecentre where I found the information in this and this way" (TBUN12).* *"I came with two people here after seeing that the telecentre had helped me. I brought my friends whom I told to come to also learn how to use ICTs from the telecentre" (TBUN10).*
Increasing awareness of issues e.g. current affairs	*"For example, I tell them that Malawi Electoral Commission is saying that this one should not happen this way. That information helps a lot. As a leader out there I enlighten people that these things will take you nowhere. For example, the calendar for elections which we are holding on 21 May many people do not know it. How it starts, when the results will be out, many people do not know. …so we enlighten them" (TBUN8)*

Leadership Development of Others

There was evidence that indirect beneficiaries gained leadership roles. For example, one beneficiary, a secondary school student, after gaining computer skills from his brother and friend who were both telecentre users, said that he was active in computer lessons at his school. He was later elected as one of the group leaders at school. He said:

"There are a number of people [I benefit from]. The first one is [name withheld] whom I knew through the telecentre. It happened that we were selected to the same school… So, when we go to the computer lab, the two of us we were elected as group leaders

because we are kind of experts in computers. We are the ones who are most knowledgeable as compared to the rest" (TBIDBN2).

6.6. Empowered Users Influencing Community Empowerment at Macro (Collective) Level

There was evidence from Telecentre B that its empowered users fostered community empowerment at macro level. This is about doing something that benefited the community beyond an individual level. In this study, I also refer to this type of empowerment as being one at a collective level. The evidence shows that there were two main forms of macro empowerment: social and organisational empowerment.

Social Empowerment

Gigler (2011) defines social empowerment as improvement in social services within the community. Among others, these could include health services such as hospitals and improvements in schools. Results from Telecentre B show that users contributed to social empowerment by improving health in the community. Particularly, one user indicated that there was no borehole in her community. However, she helped in the drilling of the bore as she took part in convincing the village headman of the benefits of having it. Thereafter, she helped in ensuring that it was well taken care to achieve hygiene in the community all thanks to accessing information in the telecentre. She said:

"Aah. Ok. Aah, let me talk about hygiene in this community. Like in this community we have places like the borehole. Ehe. So, just because I was using the telecentre, I have contributed, I was able to enlighten people, telling my neighbours that 'ok, now we have the borehole we need to clean the place. What should we do to be having hygienic water?' Yeah, working in and using the telecentre helped me to be a hygienic person and someone who would advise people that this is how we can take care of our borehole to be having hygienic water. That has helped my community to be hygienic" (TBUN1).

Most rural communities in Malawi are characterised by lack of clean water (Salanje 2006). For example, many people rely on wells and some have to walk long distances just to access water. Therefore, contributing towards having a borehole that is hygienic in a particular rural community is of great importance.

Organisational Empowerment

Organisational empowerment is about how things are done or organised within a community. An example of organisational empowerment could be transparency in election of leaders and in making decisions. It could also mean formulation of organisations and groups for changing things in a community (Gigler 2011; 2014). Results from Telecentre B indicate that, after being empowered, users were able to help form organisations. Three organisations seemed to rely on the use of the telecentre. These were the Balaka Debate Club which conducts debates on various issues affecting the community; Interfaith Organisation which helps the less privileged such as paying school fees for the needy students; and Malawi Prison Fellowship which trains people in various vocational skills some which have been described above. Specifically, these organisations were formed after using the telecentre to write proposals and looking for donors to fund them. After formulation, some of these organisations still rely on the use the telecentre to maintain contact with donors.

In addition, through the Balaka Debate Club, one user was able to help in the formulation of one of the youth clubs that was sensitising people on the effects of killing albinos, a crime which was rampant during the duration of the fieldwork. He was providing the advice on how best to form and run the club as evident in the following comment by the user:

> *"When it comes to changing [things in the community], what I know is that mostly I do interact with young people especially students. These have nothing to do [after school]. I usually meet them during the forums I do hold [through Debate Club]. They come and ask me on how they can do their things. As I am speaking now, there is a group of young people, they are saying concerned youth, they want to be doing dramas, in short. They want to form the group now. They found me home and told me [about their aims]. So, I told them that that is a good idea and told them they need to discuss as a group. I asked them if they do use Internet… Therefore, the youth mostly approach me on various reasons and I do guide them. They do benefit through that. It means those people are relying on me, right?" (TBUN8).*

Indeed, during one of the days I observed the user, I discovered that he offers advice on the formulation of clubs. One of the group members confirmed this as he said:

"We do look for people who take part. So, we found …[TBUN8]. When we explained to him our objective, he gave us the advice on how best we can do our work. he asked us, what is your target? What about your name? He gave us tips on how best to run the group" (TBIDBN1).

6.7. The Three Core Concepts in the Emerging Framework

Figure 15 shows the relationship of the three core concepts namely: telecentre; empowered telecentre users; and the community that are emanating from the discussed themes so far. These form the central concepts of the theoretical framework emerging from the data.

The telecentre that exists within a community offers access to ICT services. Some community members access these services. These people, eventually, get empowered. The empowerment takes three types. Firstly, there is *intrapersonal empowerment* which is about positive changes in how a telecentre user views or thinks of themselves. Under intrapersonal empowerment there are two forms of empowerment. Firstly, there is psychological skills which revolved around skills to do with the state of the mind. In particular, users get empowered by having increased confidence. Secondly, users get empowered through acquiring learning and developments skills. These included acquiring ICT skills and increased finances.

Usage of telecentre B also leads to *interactional empowerment* of users which eventually helps improve how users interact with their environment. This happens in three ways. Firstly, through career development as users get jobs through the telecentre and helps in shaping plans. The interactional empowerment of users also takes place by having users gain leadership development roles as users were able to gain leadership positions due to their association with the telecentre. Users also get empowered through social status and interactions/relation. I define this as the improvement of one's social status and interaction within the community. This takes place through improvement of status symbol and social ties of users within the community.

Finally, there is *behavioural empowerment* of users which takes place through community participation which is about users taking part in social political activities such as signing petitions that aim at improving things in their communities. Arrow A, shows that the double arrow between the telecentre and users, exists because the telecentre empowers users through the services in the discussed ways; and that, in return, users also support the telecentre as discussed in a later section.

Users empowered by the telecentre in turn empower the community. This relationship is shown by Arrow B. The community empowerment takes place at two levels: micro empowerment and macro empowerment. Micro empowerment is about users empowering individuals within the community hence also known as individual empowerment of community members. This empowerment takes place in different forms as well.

Firstly, there is intrapersonal empowerment which is about telecentre users helping in improving the way community members view or think of themselves. There is learning and development for others as users were teaching others ICTs such as computers which increases their competence; telecentre users pay school fees for others; there is teaching/gaining vocational skills; gaining business management skills; capital for business; and sharing/gaining knowledge. There is also increased psychological skills of others by increasing confidence of others.

Secondly, users lead to interactional empowerment of community members. This takes place through career development as users help in teaching ICT skills which helps indirect beneficiaries get jobs; and that some indirect beneficiaries employ others. There is also leadership development for others. In addition, interactional empowerment is reflected in critical awareness because users help in increasing awareness of the existence of the telecentre and its benefits; and awareness of issues happening in the community and the world at large e.g. current affairs. At macro level, users contribute to community empowerment by doing things that help more than one person at once hence also being considered as collective empowerment. Under this, users help in achieving hygiene in the

community thereby leading to social empowerment; and users lead to organisational empowerment through formulation of clubs and organisations within the community.

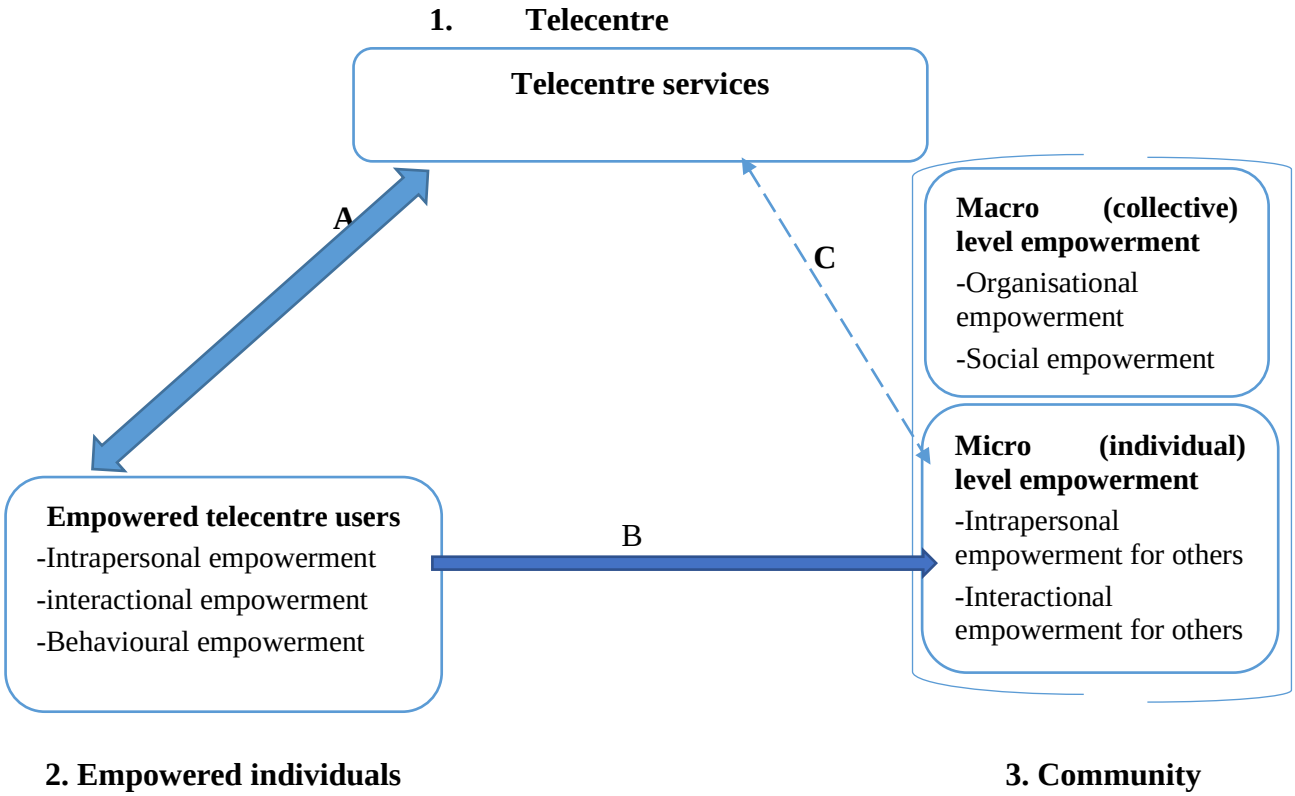

Figure 15 How Users Empower Rural Communities: The Three Core Concepts

NB: *-Straight arrows indicate direct relationship between the concepts.*
-Dashed arrow indicates indirect relationship between the concepts.
-The arrows do not represent any sequence but rather the relationship between the concepts in the framework.

The double arrow between telecentre and the community, Arrow C, represents mutual relationship between these concepts. Firstly, the community supports the telecentre since the telecentre exists within the community. The telecentre equally supports the community. This takes place indirectly as the telecentre empowers users who, in turn, empower the community at micro and macro levels. Arrow C is a dashed arrow because the reciprocal relationship is indirect.

The sections that follow discuss the factors that enable and hinder the process through which empowered users from telecentres are empowering the community; followed by users support towards the telecentre.

6.8. Enablers of Community Empowerment

Enablers of community empowerment refer to the factors that influence empowered users to empower their communities whether at micro or macro level. Such factors from Telecentre B included: sense of community, social cohesion (which relate to sense of belonging and social networks respectively of Social Capital Theory), willingness of beneficiaries, community organisation, community participation and users' personal advancement. Community organisation and community participation relate to some aspects of behavioural empowerment of Zimmerman's Psychological Empowerment Framework. Specifically, community participation relates to community involvement while community organisation can be linked to organisational participation as discussed in Chapter 3, Section 3.3.2. This section aims at presenting the findings on these factors.

Sense of Community

Sense of community is a person's feeling that they belong to a large community. It is a realisation that members of a particular community matter to one another and that collective goals can be achieved if they work collectively (Sharma & Khadka 2019). Sense of community is mostly characterised by membership thus realising that one is a member of a community; mutual influence which ensures that you and other people participate in making contributions; fulfilment of needs of the members; and shared emotional connection such as sharing history and strengthening social ties (Talo' et al. 2014). It partly relates to sense of belonging in Social Capital Theory (Fari 2015).

Sense of community enabled Telecentre B users to empower their communities. As depicted in Table 32, there were five different modes of sense of community. Sense of community in this study influenced community empowerment simply because of the feeling that the community can develop in its members. Therefore, users believed that as members of the community, they had a role to play in the community. Some users further added that if they do not take part in making changes in the community, then no one would do that. For example, one user said:

> *"Ok. So, like a member in a community, I understand that I have responsibility to my fellow community members. So, I realise that this is my responsibility. If I do not do this, nobody will do it. So, if I want to provide specific information, if I want to teach*

someone something so I just go for it. If I do not do it no one will do it. I am just doing my responsibilities as a community member" (TBUN5).

Table 32: Aspects of Sense of Community

Aspect of sense of community	Exemplary quote(s)
Everyone to be knowledgeable	*"Aah, I grew up in Chingale, Zomba which is a remote area. Even when the government wants to punish unruly teachers, they are sent there because it is a remote area [laughter]…There, I did not know that there are things like computers. Now I was saying, just because I met someone who taught me how to use computers, I started working in the telecentre, I have understood that the community needs to benefit from the telecentre. so, I told myself that it is God who made me meet this person who taught me. So, I was thinking of someone who is in the village and just hear about computers but does not know how to use them. Since technology is defining our way of life, why should I not help them?" (TBUN13)* *"Mostly I would say that aah, personally I do not want to have an ignorant society. I do not like. When I see that whatever they are doing will not take them anywhere, it hurts me a lot. So, I prefer helping the person it is up to them to take it or leave it" (TBUN8).* *"It is about you not having a country that is ignorant. When you have a knowledgeable society, things go on well" (TBUN9).* *"Ah. I would say, I would say, maybe it is just because I want everyone to be the way I am" (TBUN12)*
Love for people	*"The main thing is love, yeah. If I know something, I would not fail to let my friends know of that. I must inform others as well so that they are knowledgeable. Yes, out of love" (TBUN6*
The feeling that the community can develop by its members	*"What encourages me to [empower] is that I have a role to play in my community. Even with the barriers or challenge I would not just stay idle just because of that. I have to play my role regardless of what [challenges] I face" (TBUN1).*
For the benefits to be widespread	*"What influences me to share whatever I have learnt through the telecentre is that aah, I believe that sharing what you have with someone it means that thing will benefit people" (TBUN1).*
Hope for a better community and country	*"The passion. To really see a difference. I know as a nation we are far, very behind. I wish it were better. So, in the process that we are better you say okay let me do something to make things better. That is what keeps me that the little which we can do, I should do it right now" (TBUN5).* *"What encourages me [to continue empowering the community] is that I have hope that some day people will change" (TBUN8).*

Sense of community is also characterised by emotional connection such as trust (Ahmad & Talib 2016). Evidence from Telecentre B shows that users were also empowering the community out of love. For example, one user said: *"the main thing is love, yeah. If I know something, I would not fail to let my friends know of that. I must inform others as well so that*

they are knowledgeable. Yes, out of love" (TBUN6). In an extension to this, some users indicated that they help others out of love as the Bible commands them to. For example, one user who works for Prison Fellowship Malawi said:

> *"Aah. I should say, we are driven by, Prison Fellowship is driven by the love of Jesus….Eeh. You know, there is a scripture in the Bible which says, I was in prison and you did not come to see me. So, that eeh, those who established the telecentre they had that in mind to say that ok, we do not really, aah if we had to bring, aah if we had to help people we have to help people who really need help because in many cases people just say we are helping these, we are helping these people. But sometimes they are not the people who need help" (TBUN15).*

Indeed, when I toured the place the day that I interviewed him, I saw many sculptures with Bible verses on them. For example, Figure 16 shows one of the sculptures put in one of the classrooms I toured. This contains Bible verses on love. For example, at the very top of the Figure it, there was this inscription: "*mukachitira aliyense zimenezo mwachitira ine amene*" meaning '*whatever you did for one of the least of these brothers and sisters of mine, you did for me*" from Mathew Chapter 25 verse 40.

Figure 16: One of the Posters About Love of God for People that Encourages Users to Empower the Community.

Furthermore, users empowered the community because they hoped for a better community. It seems the community faced numerous challenges before the existence of the telecentre such as ICT illiteracy and users wanted to take part in reducing that. In addition, users believed that the community would benefit if they make use of the telecentre hence hoping for a better community if they share with others what they benefit from the telecentre. In addition, users believed that helping others would help in avoiding crimes because everyone would be empowered and independent and, consequently, leading to a better community and country. One user said:

> *"If we do not empower each other that will bring lots of problems in the community. Some of us will prosper but some will be criminals. So, to avoid crimes" (TBUN12).*

Further to what characterises sense of community in the literature, users empowered the community because they believed that everyone should be knowledgeable. It seems users believed that when everyone is knowledgeable then the community would develop. For example, one user said that they "w*ant others to be equally knowledgeable so that the community develops" (TBUN9).* The other interesting point was that users simply wanted others to equally experience positive changes as them; and that they did not want others to be ignorant like them before they were exposed to ICTs as evident in the following comment:

> *"Aah, I grew up in Chingale, Zomba which is remote area. Even when the government wants to punish unruly teachers, they are sent there because is a remote area [laughter]…There, I did not know that there are things like computers. Now I was saying, just because I met someone who taught me how to use computers, I started working in the telecentre, I have understood that the community needs to benefit from the telecentre. so, I told myself that it is God who made me meet this person who taught me. So, I was thinking of someone who is in the village and just hear about computers but does not know how to use them. Since technology is defining our way of life, why should I not help them?" (TBUN13).*

Additionally, users empowered the community because they wanted the benefits to be widespread. Users believed that "*sharing what you have with someone it means that thing will benefit people" (TBUN1).*

Social Cohesion

Social cohesion helped in influencing community empowerment. This is composed of aspects of factors that revolve around how people interact and relate with one another. Social cohesion can be likened to networks in Social Capital Theory. Mainly, at this telecentre, users empowered those who are connected to including family and friends. Users believe that it was important to firstly help those they are close to before they extend to others. For example, one user said:

> *"Ok, let me come in like this. Aah, firstly, one helps the ones that are close to you. I can give you an example of girls and boys that I taught for free. Those were my sister's friends. You get it? I taught people for free. …. For me to teach them, at first, there is need for some connection. The ones whom I taught were connected to my sister. They were my sister's friends whom she went to school together with. I told her that ok I will teach you but before I teach you, find friends [who can also be taught]" (TBUN13).*

Indeed, some indirect beneficiaries equally indicated that they benefit from the ones they are connected to. For example, at the question about who he benefited from besides the organisation that assisted him, one participant said: *"[I benefit from] friends" (TBIDBN6).*

Beneficiaries' Willingness for Help

The other factor that enabled empowerment is beneficiaries' willingness to help. Evidence shows that users were empowering people who showed interest in learning. Several users indicated that the interest of indirect beneficiaries helped in ensuring that both users and beneficiaries were comfortable as the latter would not feel forced in getting help. Some responses on this included:

> *"In addition to those connected to, one helps those who show interest. You cannot just go to someone who is not interested. It is like going and forcing someone not interested……I feel like whenever I want to empower someone say like teaching someone, firstly that person has to show interest in. if they do not, it is hard for me to be open enough… If they are ready to be assisted, I have to, if they are not, it is difficult because you cannot impose something on them. it is important for them to accept it, understand this is what we want not like imposing" (TBUN13)*

"There are some people whom when you want to help, it is difficult. They do not want to be helped. You cannot force help on them, maybe they are not willing. Yes. Yeah. So, those who are willing are the ones I help. If someone is not willing, I would not know that they have a problem" (TBUN14).

Furthermore, results show that some indirect beneficiaries got help when they asked for it. For example, one indirect beneficiary got assisted with finance for fees when he approached the organisation for such assistance as evidenced below:

"No. They are just, I only came and asked for help from the organisation saying "is it possible for you to be paying fees for me because I heard you pay fees for people?" they were like aah, it is not a problem. Come and sign. That is when I came and signed…" (TBIDBN6).

Community Participation and Community Organisation

Further to being an outcome of individual empowerment, *community participation* at Telecentre B was an enabler to community empowerment. As discussed in some section above, when empowered users took part in activities that aimed at positively changing their communities which involved signing petitions, they also helped in empowering others who had not used the telecentre by increasing their confidence in singing and delivering the petition. Therefore, community participation acted as an enabler for empowerment of community at micro (individual level).

Community organization as an enabler to community empowerment is about individuals considering themselves as community members as well as engaging in strategic discussions to achieve the vision of the community (Leung 2009). Community organisation fosters community empowerment as it brings people together who, eventually, engage in strategic discussions to achieve the community vision; and identify community problems and gather resources for solving particular problems with an aim of achieving community vision (*ibid*).

In this study, community organisation is associated with groups or organisations existing in a community with an aim of making changes within a community or country. Results show that

community organisation enables community empowerment. As explained above, three organisations through using the telecentre, were empowering the community in various forms. These included the Balaka Debate Club, which holds debates on various issues affecting the community; Interfaith Organisation, which helps the less privileged such as paying school fees for the needy students and uses the telecentre to find donors; and Malawi Prison Fellowship, which empowers ex-convicts in the ways already alluded to in Section 6.6 above and found the funding through the use of the telecentre.

Further to these organisations, some users indicated that after using the telecentre, they were able to set up clubs. For example, one user explained that he started a reading club which aimed at helping school pupils in reading and eventually deterring them from engaging in bad behaviour such as drinking beer which is a common thing in his community where there are many beer brewers. He said:

> *"The telecentre has helped me a lot because I went to our village headman to form a club. I did this because where I live many people indulge in bad behaviours like smoking weed and drinking beer. They do not go far with education; some even go into prostitution. So, I went to the village headman with my friend … [name withheld]. So, when I went there, we discussed with him the problems that we had observed in the community and brainstorm on the way forward. That is when we started the group. We mobilised all school going kids and sometimes we do teach them whenever they knock off from school. I do this with my friend… [name withheld]" (TBUN16).*

Users' Desire for Personal Advancement

User's desire for personal advancement enabled community empowerment. Evidence shows that users were empowering the community with an aim of receiving same favour in return in future when they experience a problem, a concept likened to reciprocity; for personal growth; and for personal happiness. These modes and their corresponding exemplary quote(s) are depicted in Table 33.

Table 33: Aspect of Users' Desire for Personal Advancement

Aspect of users' desire for personal advancement	Exemplary quote(s)
Reciprocity	*"Because when you love someone [and help them] they may be able to do the same thing [help you] when you equally experience a problem in the near future" (TBUN9)*
Helping others leading to personal happiness	*"I feel good when I help people because it is my career, what I learnt because I cannot be teaching things, I do not know about…. I find pride in helping people because it is my career" (TBUN14).*
Helping others for personal growth	*"And through sharing another person may enlighten you and you acquire new knowledge" (TBUN12).* *"It is about doing something that would also help you because when you teach someone, that person will benefit but if you just keep it to yourself, you end up forgetting all what you know. But when you are teaching someone you do not forget because it is like you are using whatever you know. You are learning through the person you are teaching. When you just stay idled you end up forgetting that aah I have forgotten and how I will I remember it?" (TBUN4).*

Users were empowering others because they want to receive the same help in case they face a problem in the future. This is *"because when you love someone [and help them] they may be able to do the same thing [help you] when you equally experience a problem in the near future" (TBUN9).*

Users were also empowering others simply to achieve personal happiness that comes with helping other people. Furthermore, users helped others because that would lead to their own growth. Users believed that that was possible because while helping others, the beneficiaries could enlighten them which would help them learn new things. Most importantly, users felt that when they were helping others especially through teaching, they may have their memory refreshed unlike when they do just keep what they know to themselves as evident in the following comment:

> *"It is about doing something that would also help you because when you teach someone, that person will benefit but if you just keep it to yourself, you end up forgetting all what you know. But when you are teaching someone you do not forget because it is like you are using whatever you know. You are learning through the person you are teaching. When you just stay idled you end up forgetting that aah I have forgotten and how I will I remember it?" (TBUN4).*

6.9. Inhibitors to Community Empowerment

Results show that the process of empowering the community was hindered by numerous factors. These factors also hindered users in accessing the telecentre services which, in the end, negatively affected community empowerment. These factors fall under five main categories: limited resources, people's attitudes, psychological barriers, gender issues and structural factors.

Limited Resources and Services

Limited resources negatively affected community empowerment. These included, on the side of users, the telecentre and the community. Firstly, there were limited equipment and services at the telecentre. Users indicated that the telecentre had limited computers and desks. This prevented some users from accessing the services at a time they required them. For example, one user said "*they need to add more computers" (TBUN12).* In agreement, another user added that more desks were equally needed. He said:

> *"I just wanted to support on what the previous two speakers have said. That is all true because many people know about the telecentre, they would want to use the telecentre. so. They should add more computers and desks" (TBUN9).*

It was indeed noted that some users had to wait for others to finish before they accessed the services. Adding more computers would help in reduction of time that users sometimes had to spend in waiting for access to services. Furthermore, there were limited services within the telecentre. Users indicated that they would love to have more services in the telecentre. This would help in ensuring that the telecentre caters for various groups within the community. One user said:

> *"Maybe because they do not have some other resources for the telecentre to have interest of the different categories of people in the community" (TBUN8).*

The other aspect of limited resources was limited finances which made some users perceive the telecentre services to be expensive. This is understandable given the low-income levels of most of the users. Therefore, even if the telecentre services tended to be low, their low-income levels would make them perceive telecentre service to be high. One user said:

"It is cheap yes [but] depends on the period you are using it. If you are using it for longer period, it is costly. If I am just to send a letter which is in flash disk, I will not take long. It is just a matter of a few clicks. I will only pay K150 (£0.17) or K200 (£0.22). Sent. Yet when I went to search for lots of information, I will spend a lot" (TBUN8).

Lastly, limited resources at Telecentre B manifested in low educational levels of the indirect beneficiaries. This as a challenge as the ICTs needed someone who is literate. One user complained:

"Ok. aah their age, and other factors education you are saying come into place because it is very difficult to help someone who never went to school. Of course, I have seen many people who are interested, they want to learn. They seem to be curious to learn but [not clear] its difficult because ICTs require someone who is able to read. I am talking of this based on experience. Balaka telecentre receives different people in terms of age and educational levels, and culture" (TBUN13).

Gender Issues

Another important factor that hindered community empowerment was gender issues. Particularly, there was evidence that some people, especially men, did not respect the advice they got from women. That is, even if women would like to empower men, their advice is ignored simply because they are women. For insurance, one user female user complained:

"Yes. I think communication is the biggest barrier. People do not really listen. From like a woman like me they hardly listen. But it happens that the people one is interacting with are those bike guys [business]. So, when you try to say something they say you women just stop that yet you want to share something important" (TBUN5).

People's Attitudes

There were factors that had to do with people's attitudes towards people and ICTs. These included: people expecting handouts; discouraging comments; hatred; looking down upon others; and negative perception of ICTs. Table 34 outlines these aspects and exemplary quote(s) under each of them.

Firstly, people within the community expected handouts whenever they were told to converge for help especially for the time spent in receiving help. It seems this is the trend in this particular area because, during the fieldwork, as indicated in methodology chapter, the participants from this area expected money from the researcher to be paid in exchange of information they had given, which was ethically wrong. Instead, the participants were just reimbursed transport costs which was about £2.23 each.

Discouraging comments was another aspect of people's attitudes as a barrier to community empowerment. The comments emanated from various people depending on the activities that users engaged in. For example, one user who was empowering the community by paying school fees of students and helping the elderly through the funding they got by using the telecentre as means for writing proposals indicated that whenever they helped people within the community, others were not happy with that and labelled it as being discriminatory. He said:

> *"We meet lots of challenges because living in the villages is not an easy thing. Yeah, when you help one person others talk [complain] a lot. Aah, they are being discriminatory, what do they want. So many things. Aah they are discriminatory. Why is it that they are only helping one person. But we do not consider that" (TBUN11).*

Some other users concurred on the issue of discouraging comments. Other indicated that sometimes these were deep rooted such that they went back to the hatred that once existed among parents.

Table 34: Aspects of People's Attitudes to Community Empowerment

Aspect of people's attitudes	**Exemplary quotes**
People expecting handouts	*"Aha. Yeah. The main problem is that, ok let's say I want to share some information, it is difficult because people start asking, what are we going to benefit from this? It is always difficult when they know that they are not going to benefit anything" (TBUN1).*
Discouraging comments	*"of course, at some point., I remember, of course it was not something serious. Someone was thinking that I only teach girls. What I already told you about that I found people through my sister. Of course, there were two boys. But they said I favour girls, but my intention was to help increase the number of girls who are computer literate. Those social ties, my ties, the ones I am connected tp. I am connected to my sister. I do not expect her to bring boys then I will conclude that she is busy with boys" (TBUN13).* *"When one is doing something you know in our societies they say, aah*

	what does he think he is? What does he want to be like? So that angers people….It is in our culture. You know hatred comes from different angles. Sometimes it is about disagreements with our parents" (TBUN9).
Looking down upon others	*"The problem with Malawians is that they will say aah this one will not tell me anything meaningful" (TBUN13).* *"there are lots of barriers. Say the person I want to help is older than me, maybe once carried me in their arms when I was a toddler. If I want to help that one they end up underrating, me saying what can you tell me as young as you are. That is the main challenge, underrating" (TBUN16).* *"Mostly, it is difficult to understand you especially when one considers age. Sometimes they say ah as old as I am and then I should be listening to this toddler? It should be the other way round" (TBUN6).*
Negative perception of ICTs	*"I have also talked about culture. There are some people who just believe that these things are for the white people and not us. Therefore, for you to teach those people one needs to understand. So, it is something that, the factors are there…" (TBUN13).*
Hatred	*"It is about hatred. Like why you are doing that thing in that place?" (TBUN9)*

The third form of people's negative attitudes was reflected in community members looking down upon users whenever they wanted to empower them. One user complained that *"the problem with Malawians is that they will say aah this one will not tell me anything meaningful" (TBUN13).* It seems this was common among the elderly who would not take advice or help from the people younger than them as evident in the following comment:

> *"Mostly, it is difficult to understand you especially when one considers age. Sometimes they say ah as old as I am and then I should be listening to this toddler? It should be the other way round" (TBUN6).*

Negative perception of the ICTs also affected the empowerment process. As evident in the comment below, this linked to the perception that the ICTs are meant for white people:

> *"I have also talked about culture. There are some people who just believe that these things are for the white people and not us. So, for you to teach those people one needs to understand. So, it is something that, the factors are there…" (TBUN13).*

This problem could be attributed to the fact that people were not aware that these could be used by anyone; and that the ICTs were in English which made them to be viewed as foreign objects. Therefore, providing ICTs in local content and raising awareness could help solve the problem.

Lastly, there was hatred among community members, which eventually affected the empowerment process. One user said:

"It is about hatred. Like why are you doing that thing in that place?" (TBUN9)

Psychological Barriers

There was another form of factors that had to do with the state of mind. I label this as psychological barriers. Specifically, some other users lacked confidence in empowering others which, eventually, made them to have impact on a few people. One user said:

"Ok. I wish I was doing a lot but sometimes I say let me empower myself first then I empower others that for you the time you should empower others you say maybe I have not really reached the stage that I can share with others" (TBUN5).

Structural Barriers

Structural factors in this study refer to inhibiting factors to community empowerment concerning the infrastructure and structures that enable the delivery of the telecentre services. There were three main structural factors: unreliable power supply, poor internet connectivity and poor customer care. Table 35 depicts these aspects.

Unreliable power supply affected the accessibility of the telecentre services as all the services rely on electricity. Like all telecentres in Malawi, Telecentre B relies on power supplied by ESCOM. During fieldwork, the area experienced power outages almost on daily basis. Therefore, whenever the power went off, users could not access the services. This made some users even miss important deadlines. For example, one user complained:

"But I am disappointed…the telecentre needs a genset. We once missed deadline for the proposal some other time because there was no electricity. We were given deadline. Are you getting me? We wrote, wrote, and wrote. We finished [writing]…when we went to the telecentre [to send the documents] there was no electricity. There was no power the whole day. You know the white people they are strict with time. They consider the ones they have received at that particular time. They do not know the problems we experience on this other side of the world" (TBUN8).

Previous studies on telecentres in Malawi also found that unreliable power supply is one of the main challenges telecentres face in the country (Chikumba 2010; Kapondera & Hart

2016; Kapondera & Chigona 2017). An alternative power supply such as genset would be helpful.

Table 35: Aspect of Structural Barriers

Aspect of structural barriers	**Exemplary quote(s)**
Unreliable power supply	*"The problem we have is about black outs. So, eeh it affects us negatively" (TBUN11).*
Unreliable internet connectivity	*"All what we want is that in this telecentre there should be new equipment because mostly it is about eeh we do not have Internet connection. Then one goes back home. No internet connection. If there could be another way of fixing this so that there should be no breakdowns. We will be happy" (TBUN11).*
Poor customer care	*"Also, customer care. Not everyone who comes here [telecentre] knows how to operate computers. So, it is important to have someone to be attending to such people. Asking them you have come here what do you to do? Sit here. And then you help that one" (TBUN8).*

Slow internet connectivity which was sometimes unavailable was a barrier to community empowerment too. Previous studies on challenges that telecentres face in Malawi also found that many telecentres experience slow internet connectivity. As suggested one of users in the comment below, the telecentre needs to consider upgrading.

> *"Also, the internet needs upgrading especially with speed. Because when one needs information on the internet and the internet is fast then it means one would quickly do their things" (TBUN12).*

Furthermore, there was poor customer care among some members of staff. This left some users frustrated. Good customer care services are important for any information services provider (Kapondera & Hart 2016). Therefore, there is need to make improvements on this.

6.10. Users' Support Towards the Telecentre

As users were being supported by the telecentre i.e. accessing telecentre services and getting empowered, they were in turn supporting the telecentre. This support was in two main forms: sustainability and provision of security.

Sustainability

Users were supporting the telecentre financially. This was because users were paying for services that they accessed. The money they paid contributed to the telecentre's sustainability as among others, it helped pay for other things such as staff and servicing the equipment. For instance, one user said:

> *"Yeah. There is because we pay for some services. That helps it [telecentre] to pay for some things and there is some benefit that they derive from that. So, I would say that is the main thing [support]" (TBUN9).*

Users also contributed to the telecentre sustainability by attracting other people to the telecentre. Some of these people were those who did not know about the existence of the telecentre. For example, one user said:

> *"In addition to monetary assistance, the other thing is that some people do not know this place. Yes, so I do tell them that you should go to such and such place [telecentre]" (TBUN11).*

As echoed by another user, attracting people to the telecentre helped in increasing the usage base and continued operation of the telecentre. He claimed:

> *"I have helped the telecentre a lot because for it to run smoothly, it is important that people keep visiting it. So, I have helped it because I direct people that ok, if you want to find that information, go to the telecentre. So, in that case, that place will not be the same again because the people I have directed to the telecentre will be able to pay a little something in such a way the telecentre is sustaining itself" (TBUN1).*

Security Provision

Security provision as a means of supporting the telecentre was mainly reflected in users taking care of the equipment within the telecentre. users indicted that whenever they use the equipment, they make sure that they follow rules and regulations so as not to break the equipment. Eventually, this may help to ensure that many people use them as well. One user said:

> *"I do take care of the equipment. The issue is that, whenever one is given a chance to use the services within the telecentre and vandalise the equipment it means you have not*

helped the telecentre. the best thing is to take care of the equipment whenever given a chance to use the telecentre so that others should as well be able to use them" (TBUN6).

6.11. Emerging Framework for Understanding Effects of Telecentres on Community Empowerment

Figure 17 is a conceptual framework that is formed based on all the themes emerging from data collected from Telecentre B and discussed in this chapter. This section mainly focuses on the enabling and hindering factors as additional elements to the elements discussed earlier on (refer to Figure 15). Arrows D and E represent these factors in Figure 17 respectively.

The findings clearly show that users get empowered when users access telecentre services. Eventually, empowered users empower their communities at micro and macro levels in forms already discussed in Section 6.7. However, evidence shows that transformation of users' empowerment into community empowerment is not direct as there are factors that enable it. This is captured by Arrow D.

There are mainly six enablers namely: sense of community, social cohesion; beneficiaries' willingness to learn; community participation, community organisation and users' desire for personal advancements. Sense of community influence users to empower the community because users feel that the community can develop by its members. They also empower the community because they feel that everyone should be knowledgeable; out of love for people; the benefits of the community need to be widespread; and that users hope for a better community. Through social cohesion, users empower people they are connected to. Beneficiaries' willingness to learn also enables users to empower the community. Specifically, this is because users help those who show interest in learning and those who approach and ask users for help. The other factor that enables community empowerment is community participation as users take part in activities that bring positive changes the community and country such as signing petitions, which, eventually, influences empowerment of other community members who take part in the activities such as increasing their confidence. Community organisation acts as an enabler to community empowerment because users were empowering people and the community at large through setting up organisations and clubs which impact on various aspects. Finally, users' desire for personal

advancements also influences community empowerment. This is because users empower others with the hope that they may get same favour when the face a similar problem; for personal growth such as knowing other things through teaching others; and for personal happiness.

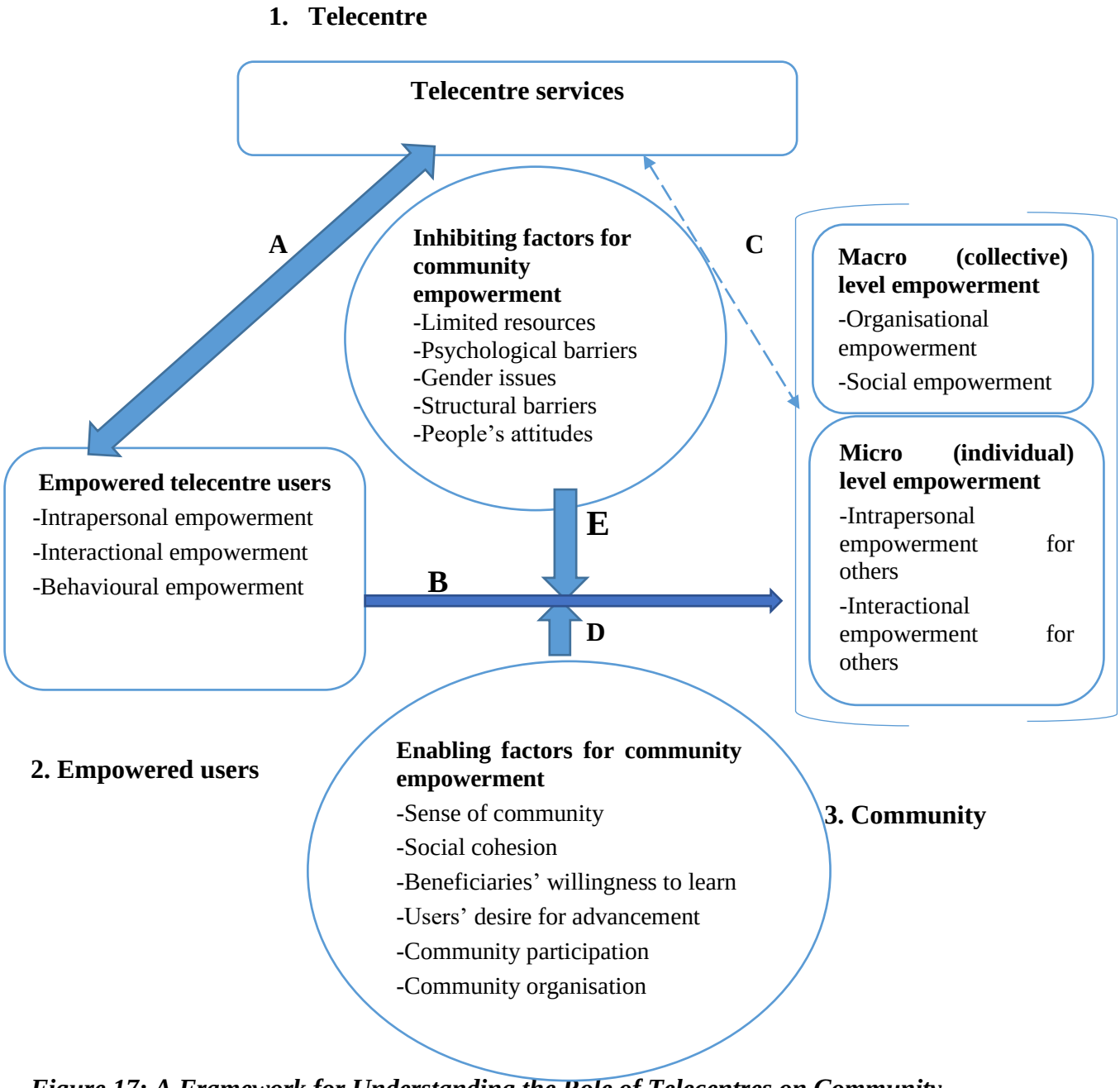

Figure 17: A Framework for Understanding the Role of Telecentres on Community Empowerment

NB: *-Straight arrows indicate direct relationship between the concepts.*
-Dashed arrow indicates indirect relationship between the concepts.
-The arrows do not represent any sequence but rather the relationship between the concepts in the framework.

Despite this, other factors hinder the conversion of the individual empowerment as represented by Arrow E. These factors also hinder users in accessing the telecentre which, in the end has negative impact on community empowerment. There are mainly five factors in this category: limited resources, gender issues, people's attitudes, psychological barriers and structural barriers.

Limited resources on the part of the telecentre such as lack of enough computers, desks and services; on the part of users such as money; and on the part of indirect beneficiaries especially low educational levels affected the empowerment process.

Gender issues hinder female users in empowering the community because some men do not respect advice from women. People's attitudes that hindered users from empowering the community include: beneficiaries expecting handouts when being helped; discouraging comments from the community; hatred among community members; looking down upon others and negative perception of ICTs.

Psychological factors hindered users in empowering the community because users lack confidence. Furthermore, structural barriers such as unreliable electricity, slow internet connectivity and poor customer care in the telecentre act as barriers to community empowerment.

Finally, when users access the services from the telecentre, they in turn support the telecentre. This mainly takes place in two ways. Firstly, users pay for services and attract others to the telecentre which, eventually, contributes to sustainability of the telecentre. Secondly, users support the telecentre through security provision by, for example, taking care of the property which, in the end, leads to telecentre's sustainability. The support of the users towards the telecentre is represented by having a double arrow, Arrow A between telecentre and empowered users.

6.12. Chapter Conclusion

The chapter aimed at presenting an analysis of data from Telecentre B that were collected using FGDs, interviews and observations on the role of telecentres in empowering rural communities. Firstly, the chapter described the case and demographics of the participants

before presenting data. Secondly, looking at the themes emerging from the data analysis done for Telecentre B, it can be concluded that:

- Telecentre users get empowered after using ICT services provided by the telecentre.
- Users empower their communities both at micro (individual) and macro (collective) levels.
- Community empowerment through telecentre empowered users is enabled by a myriad of factors.
- Several factors hinder community empowerment.
- Users render support towards the telecentre.

In the next chapter, I will carry out a cross-case analysis revealing the similarities and differences between the cases before moving on to the discussion.

CHAPTER SEVEN: CROSS-CASE COMPARISON

7.1. Introduction

The aim of this chapter is to present a cross-case analysis of Telecentre A and B. Specifically, among the telecentres I visited, both telecentres showed evidence of community empowerment using users as mediators. Knowing similarities and differences in the cases is useful. Hence, this chapter aims to do a cross-case analysis, an approach that has been adopted in several multiple case studies (such as Smith 2014; Willess 2015).

Cross-case analysis aims at exploring similarities and differences across cases (Smith 2014). In this chapter, I discuss the similarities and differences mainly based on the themes discussed in Chapter 5 and Chapter 6 which present data for Telecentre A and Telecentre B respectively. Six similar themes emerged from the two cases. These included: telecentre's influence on users (empowered users); empowered users influencing community empowerment at micro level (individual empowerment of community members); empowered users influencing community empowerment at macro (collective) level; enablers of community empowerment; inhibitors of community empowerment; and user's support towards telecentre. There are several similarities between the two cases based on these six themes as most of the aggregate dimensions tend to be similar except for a few differences as discussed under each theme in later sections. Since it is commendable to come up with a table summarising similarities and differences (Vohra 2014), I present these in a table attached as Appendix J.

Before the discussion on the differences and similarities based on the themes, I discuss the differences of the profiles of the telecentres in the next section. This is followed by a cross-case analysis of the participants of the two telecentres.

7.2. Profiles of the Telecentres

This section provides a brief distinction of the telecentre profiles based on type of the telecentre; services provided, management model and the location of the telecentres as indicated in Table 36.

Telecentre A is a multipurpose telecentre. It provides ICT services and other services such as library services where people go and study books and use reading space. In contrast, Telecentre B is a basic telecentre whose focus is on limited ICT services. For the specific ICT services provided by Telecentre A and Telecentre B, refer to Section 5.2 of Chapter 5 and Section 6.2 of Chapter 6, respectively. The difference in terms of the number of services that these telecentres provide may have a bearing on the empowerment of users and the whole community at large. For instance, as explained in a later section, users at Telecentre A experienced increased performance at school because of library services provided within the telecentre which was not the case with users at Telecentre B which did not offer library services. Furthermore, Telecentre A is a community managed telecentre whose management committee is composed of representatives of various groups in the community, while two entrepreneurs manage Telecentre B. In terms of location, Telecentre A is in a remote area where similar services are minimal while Telecentre B is located in relatively small township which has a number of cybercafés where users can access the same services and get empowered from using the alternatives. There are also banks around the township while for Telecentre A, such services are found at least 25 kilometres from the telecentre.

Despite these differences, both telecentres were established by the Malawi Government with funding from international organisations such as ITU and the World Bank to bring the benefits of ICTs to those who cannot afford individual access to ICTs hence bridge digital divide in Malawi. The difference in management between the two telecentres is because the government of Malawi hands over telecentres to various groups such as communities, schools and entrepreneurs based on the location of the telecentres among others (Banda 2015).

Table 36: Profiles of Telecentre A and B

Name of the Telecentre	**Telecentre A**	**Telecentre B**
Type of the Telecentre	Multipurpose	Basic telecentre
Type of services offered	ICT services and library services	ICT services
Management model	Community managed	Entrepreneurial
Location	Remote area	Small township

7.3. Profiles of Participants

There were notable differences in terms of users of the telecentres (refer to Section 5.3 of Chapter 5 and Section 6.3 of Chapter 6 for a detailed description) especially on education, income levels, and occupation. The majority of Telecentre A users had a secondary school qualification; they were students; and their incomes were low. On the other hand, Telecentre B users were relatively educated with a couple of them having tertiary education qualification such as a degree; majority were working class people with only two users as students; and their incomes a little bit higher perhaps because most of these were working. The differences on the education could be attributed to the fact that as stated in Chapter 5, Telecentre A is surrounded by schools and the only facility that has a library, therefore students dominating it; while Telecentre B does not provide library services and that some schools in the area have a library in addition to a public library present in the township. Nevertheless, there were similarities in terms of gender and age as at both telecentres, majority were males and youth.

On the profiles of indirect beneficiaries, there were more similarities. For example, the majority were males, youths, and had at least a secondary school qualification. However, in terms of occupation for Telecentre A, majority were employed while for Telecentre B, the majority were businesspersons. Although, at both telecentres they had low incomes, a good number of indirect beneficiaries of Telecentre B earned more than MK80000 (£89) a month making their incomes higher than their counterpart.

Furthermore, most of the indirect beneficiaries at Telecentre A were largely connected to the users in one way or the other. For Telecentre B, the majority of indirect beneficiaries were not connected to the users. For example, of the 14 indirect beneficiaries at Telecentre A, 13 of them were connected to users by either being friends, colleagues, and relatives. On the other hand, only 2 of the 9 indirect beneficiaries were connected to users of Telecentre B. As discussed more in later section, this could be because, at Telecentre B, majority of users empowered people through community organisations which targeted specific groups of people in the community hence helping people they are not even connected to.

7.4. Telecentre's Influence in Empowering Users (Empowered Users)

At both telecentres, the users selected through the telecentre management teams were assumed to be empowered. Still more, the selected users were asked on how they got empowered by the telecentres. There were both similarities and differences on how users of these telecentres were empowered. Both telecentres led to three types of individual empowerment: intrapersonal, interactional and behavioural empowerment. Table 37 captures these types of empowerment. Under each type of empowerment, the table captures the forms of empowerment and the aspects under each telecentre some of which are similar. In this section, for each of the three types of empowerment, I start with the forms of empowerment available at one telecentre and not the other i.e. start with the forms of empowerment only available at Telecentre A and then move to the one only available at Telecentre B. I later discuss the differences before pointing out the similarities for each form of empowerment.

Intrapersonal Empowerment

For intrapersonal empowerment, which is about how people view and think of themselves, there were both differences and similarities. The main difference was on telecentres empowering users through increasing their *psychological skills*. At Telecentre B, there was evidence that the use of the telecentre enhanced psychological skills of users. Particularly, the telecentre enhanced users' confidence. One user indicated that learning computer skills in the telecentre helped him gain confidence such that he could stand in front of people which was not the case previously. There was no evidence of psychological skills at Telecentre A. The implication is that the same service may have different empowerment effects for individuals. This absence may indicate that users at Telecentre A had already achieved empowerment before using the telecentre.

There existed differences in how telecentres contributed to *learning and self-development* of users which is another form of intrapersonal empowerment. Firstly, at Telecentre A, users experienced good performance at school after using the library and some school related information on the Internet which was not noted at Telecentre B. The difference could be due to two reasons. Firstly, the majority of users at Telecentre A are students as already alluded to. Secondly, Telecentre A has a library which stocks books and has reading space; and most students rely on this library because majority of schools in the community do not have libraries. Furthermore, users at Telecentre experienced increased knowledge which was not

the case with their counterparts. This, to some extent, may be attributed to the fact that majority of users were students and availability of information in the library. On the other hand, for Telecentre B, some schools have library, there is a public library open to everyone in the area and that the telecentre does not provide library services. The other difference is that computer skills acquired at Telecentre A acted as basis at tertiary level of some users which was not evident in Telecentre B. Again, the difference could be understood on the basis that majority of users were students for the former. The other difference under learning and self-development skills is that at Telecentre B, the telecentre helped increase finances of users. This is mainly reflected in users who once worked in the telecentre. Though there exists such a difference, one can also argue that Telecentre A also helped users increase their finances such as those who opened a cybercafé and those who got employed after participating in computer tutorials though it did not come out from users as a change they experienced. These differences imply that the same service may bring different values to different groups. For example, computer training only helped Telecentre A users in shaping career because they were mostly students while at Telecentre B this did not exist as most of the people already had career. This may also indicate that the type of individual also has a role to play in the empowerment effects. Despite these differences, there existed some similarities on how both telecentres helped in learning and development skills of users. These included gaining ICT skills such as being able to use computers and printers which eventually increased self-esteem and confidence in how they worked with computers.

Interactional Empowerment

Both telecentres enhanced interactional empowerment of their users. There were notable differences on how the two telecentres led to interactional empowerment of its users. Firstly, at Telecentre A, users got empowered through *critical awareness*. In this study, critical awareness is about being able to know what is happening in one's surrounding environment and the world as well as knowledge of the existence of the telecentre and its benefits. There was evidence that Telecentre A users helped others become aware of the issues in their community. Although users at Telecentre B indicated that they help empower the community by increasing the critical awareness of others (as discussed in Chapter 6 and in a later section of this chapter), users did not indicate critical awareness as one of the ways through which the telecentre changed their lives.

Table 37: How users of Telecentre A and Telecentre B got empowered

Type of Individual empowerment	Form of empowerment	Telecentre A	Telecentre B
Intrapersonal Empowerment	**Learning and Self-development Skills**	Learning how to use computers and other ICTs	Gaining ICT skills
		Computer tutorials acting as basics at tertiary level	Increased finances
		Increased knowledge (reasoning skills, school related)	
		Good performance in school	
	Psychological Skills		Increased confidence
Interactional Empowerment	**Career development**	Use of telecentre helping get a job (employment opportunities)	Telecentres helping people get job
		Use of telecentre helping in shaping career	
		Use of the telecentre helping in prospects/ plans	Use of the telecentre helping in plans
	Leadership Development	Using telecentres increased leadership skills and roles	New leadership skills and roles
	Social Status and Interactions/relationships	Telecentres helping increase status symbol by helping them known to people	Increased status symbol Increased social ties
	Critical awareness	Increasing awareness of issues	
Behavioural Empowerment	**Community participation**	Taking part in community activities	Taking part in community activities

At both telecentres, users were empowered through gaining skills that enhanced their career hence leading to *career development*. However, there were differences that existed. While at Telecentre A participation in computer tutorials helped to shape the career of users such that they were able to pursue courses in ICT, this was not the case at Telecentre B. The difference could be attributed to the fact that majority of users at Telecentre A were students who had participated in computer tutorials soon after finishing secondary school certificate while at Telecentre B, majority of users already had a tertiary school qualification. Despite the differences, at both telecentres, users were able to get jobs. Specifically, at Telecentre A, users got jobs after participating in computer tutorials. Similarly, users at Telecentre B were getting jobs through using information on available jobs that people accessed using Internet and emails from corresponding with potential employers. Furthermore, both telecentres

helped users shape plans. Specifically, the computer knowledge acquired from the telecentre helped users come up with plans to open cybercafés in future. The other form of users' empowerment is *leadership development*. The usage of both telecentres helped in gaining leadership roles. At both telecentres, this was because users became known in the community due to the association with the telecentre which earned them leadership in places like churches. In addition, due to use of the telecentre, some users especially students became active in class which earned them leadership positions such as leading subject groups and prefects.

Although both telecentres led to improved *social status and interaction/relationships* of users, there existed several differences. Specifically, the use of Telecentre B helped in increasing social relationships as users indicated that through the use of the telecentre, they were able to develop friendships which eventually, helped them benefit from each other such as being given a piece of land. This was not said as one of the changes that users of Telecentre A experienced although when they were asked as to why they still rely on telecentre despite having smartphones, some users at Telecentre A indicated that it helps in socialising which was the similar case at Telecentre B. The implication of this difference is that what may be valued as a main change in one context may not be considered as such in another context depending on what people value. However, both telecentres helped in increasing the status symbol of users. At both telecentres, users were known in the community such that they could be entrusted with errands in the community.

Behavioural Empowerment

There were no notable differences in how both telecentres contributed towards behavioural empowerment. Users of both telecentres were taking part in community activities such as signing petitions. The only difference is that at Telecentre B, the community participation helped users to empower others as explained in detail in a later section. This implies that when users get empowered, not all types of users' individual empowerment is transformed into community empowerment.

7.5. Empowered Users Influencing Community Empowerment at Micro Level (Individual Empowerment of Community Members)

Users of both telecentres empowered their communities by helping the immediate beneficiaries to them. In this study the empowerment at this level is referred to micro level empowerment or individual empowerment of community members. These community members mainly included family, friends, colleagues, and fellow students. The difference existed in the type of individuals between the telecentres. Specifically, there was little evidence of empowering colleagues at Telecentre B as compared to Telecentre A. Users of both telecentres led to intrapersonal and interactional empowerment of individuals. However, on the forms of each of these types of individual empowerment, there are some forms available in one telecentre and absent in the other. Secondly, there are some forms empowerment which are available in both but have differences and similarities in terms of the aspects. Furthermore, there is one form of empowerment that took place in both telecentres with similar aspects. Table 38 captures these similarities and differences.

Intrapersonal Empowerment for Others

Users of both telecentres led to intrapersonal empowerment for others as shown in Table 38. However, there was evidence of Telecentre A users *increasing cognitive frame* of people which was not the case with Telecentre B. Specifically, Telecentre A users helped in changing mindsets of people about ICTs which used to be negative. The difference could be understood because of the locations of the centres. As stated in above section (refer to Section 7.2), Telecentre A is located in a pure remote area where things like computers are purely new. In remote areas, people perceive computers negatively mainly because of limited exposure (Sarfo et al. 2011). Another important difference existed in the fact that users of Telecentre B helped in increasing *psychological skills* of the indirect beneficiaries. Particularly, users helped in increasing confidence of other people. This mainly took place when they participated in socio-political activities and the empowered users shared knowledge which eventually made other confident to partake in the activities. Indeed, community participation helps in empowering other people because during participation, people become knowledgeable and aware of what is happening in their environment (Rissel 1994). There was no such evidence in Telecentre A. This could be because there were no much social political activities that were mentioned at Telecentre A as compared to Telecentre B.

Users of both telecentres led to intrapersonal empowerment of community members by contributing towards *learning and development of others*, though the forms or aspects of the learning and development differed. For example, at Telecentre A, there was evidence that indirect beneficiaries improved performance at school. This could be because users at Telecentre A were sharing school related information they acquired from the books in the library with others; and that users empowered others by recommending the library in the telecentre for studies and that when the indirect beneficiaries started using the library, their performance improved. On the other hand, at Telecentre B, there was an element of paying school fees for the needy students, teaching/gaining vocational skills; gaining capital for business; and gaining business management skills which did not exist at Telecentre A. These differences could be understood on the basis that at Telecentre B, these were being done by organisations that were set up after using the telecentre while at Telecentre A, there were no such organisations. Despite these differences, there were some similarities the main one being users teaching people ICTs, except that majority of users that mentioned this were from Telecentre A.

Interactional Empowerment for Others

Users of both telecentres influenced interactional empowerment of others. There were both differences and similarities on how this was done between telecentres. Users of Telecentre B helped in enhancing *leadership roles* of indirect beneficiaries. When users taught others how to use computers, some of these were secondary school students who used the skills in their school and were able to guide others. This element of empowerment was not observed in the indirect beneficiaries of Telecentre A users.

At both telecentres, users led to *career development* of indirect beneficiaries. However, there existed differences in how users of the two telecentres contributed to career development of community members. Users of Telecentre A increased efficiency of work of indirect beneficiaries especially when they were taught how to use ICTs and applied the skills in their work. These were not noted at Telecentre B. This could be because none indicated to have empowered a colleague at Telecentre B. Furthermore, at Telecentre A, after getting empowered, users were able to open a cybercafé and employed others who were initially jobless. This helped not only in the reduction of local unemployment rates but also in increasing the finances of the indirect beneficiary who could take care of themselves.

Although none of the users of Telecentre B opened a cybercafé, users at Telecentre B also helped others get jobs by teaching them computer skills which helped them in applying for jobs, and, eventually, they were employed. In addition, one interesting finding is that at Telecentre B, one indirect beneficiary was employing others after acquiring vocational skills from one of the organisations opened using the telecentre.

Table 38: How Users of Telecentre A and Telecentre B led to Individual empowerment of Community Members

Type of Individual Empowerment	Form of Empowerment	Telecentre A	Telecentre B
Intrapersonal	Learning and development for community members	Teaching computers which eventually increases ICT skills	Teaching others ICTs
		Sharing knowledge with others	Paying school fees
		Indirect beneficiaries' Improved school performance	Teaching/gaining vocational skills
			Gaining business management skills
			Capital for business
			Sharing/gaining knowledge
	Psychological skills		users improving confidence of indirect beneficiaries
	cognitive frames skills for others	Changing mindsets	
Interactional	Career development for others (employment opportunities and improved work for others)	Improved work efficiency for indirect beneficiaries	Helping others get jobs
		Users opening a cybercafé which employs people	Indirect beneficiaries employing others
	Increasing critical awareness for others	Increasing awareness of the telecentre, its services and of the benefits	Increasing awareness of the telecentre services and benefits
		Increasing awareness of issues	Increasing awareness of issues
	Leadership development for others		indirect beneficiaries gained leadership roles

Despite these differences, users of both telecentres helped in *critical awareness*. They both empowered indirect beneficiaries by raising awareness of the existence of the telecentres, their services and benefits. They also helped in raising awareness of the issues in the surrounding environment and the world thanks to the telecentres. The other similarity is that at both telecentres, there was evidence of indirect beneficiaries of empowering their

communities as well. Thus, when users got empowered, they empowered their indirect beneficiaries some of which empower their communities as well. This shows that there are different empowerment flows. The first one is shorter because when users get empowered, they empower their communities such as people connected to them and it ends there. The second flow is that when empowered users empower their communities, the indirect beneficiaries also empower others making this flow longer than the previous one. I discuss more on this in the Discussion Chapter, Chapter 8.

7.6 Empowered Users Influencing Community Empowerment at Macro Level (Collective Empowerment of Community)

Macro level empowerment refers to collective empowerment. This is concerned with users doing something that benefits the community at large as opposed to micro level empowerment, which is about benefiting an individual, the concept discussed in the previous section.

Users of both telecentres led to macro level (collective) empowerment. There were no differences in terms of the forms of collective empowerment that users contributed to the two telecentres. At both telecentres, users led to social empowerment and organizational empowerment. However, there are some observable differences between the telecentres in terms of the aspects under these two forms of empowerment. Table 39 depicts how users led to organisational and social empowerment at the two telecentres.

Firstly, with social empowerment which is about how ICTs help in improving social services such as hospitals and schools (Gigler 2011; 2014), at Telecentre B, in addition to contribution towards efficiency in administration of examinations which was also the case with users at Telecentre A, Telecentre B users contributed to the improvement of health in their community. This happened when one of the users helped her community to drill borehole so they could have clean water in the community. Using the information in the telecentre, she guided others in the community in how to look after it to achieve hygiene. The differences could be understood that the two communities have different needs in social services. For example, during fieldwork, I observed that there were several boreholes in the villages surrounding Telecentre A as compared to Telecentre B.

Table 39: How users of Telecentre A and Telecentre B led to Collective Empowerment

Name of Telecentre	***Organisational Empowerment***	***Social Empowerment***
Telecentre A	Telecentres users contributing towards decisions in the community	Efficiency in administering examinations
Telecentre B	Guiding in formulation of clubs Formulation of organisations and clubs	Efficiency in examinations Improvement in health

Organisational empowerment is about how things are done in a specific community. Some indicators of organisational empowerment include transparency in selection of leaders and creation of organisations (Gigler 2011; 2014). Organisational empowerment at Telecentre A was to do with people, particularly the youth, being involved in making decisions concerning their community thanks to the telecentre which disseminated information. This was not observed at Telecentre B which may be attributed to the fact that Telecentre A is largely surrounded by villages in which decisions are made by chiefs (Kanyongolo 2016; Kita 2019); while Telecentre B does not only serve villages but the township where decisions are made by district authorities (Kanyongolo 2016). The other difference is that with Telecentre B users, organisational empowerment was to do with helping in creating organisations and clubs; and giving advice to the club. The main finding on organisational empowerment is that the types of organisational empowerment depend on the communities that the telecentres serve. Although there are such differences, the main finding is that users of both telecentres led to the same types of empowerment at macro level.

7.7 Enablers of Community Empowerment

At both telecentres, there are a number of factors that made users empower their communities. These are labelled as enablers of community empowerment. For each centre, the factors (sense of community, social cohesion, community organisation, community participation, willingness of beneficiaries, and users' desire for personal advancements) were put into categories based on the similarities and differences. Table 40 captures these factors. Most of the categories of these factors are similar between these centres though there exist some differences in the aspects that form these categories.

The main difference is that two factors apply to Telecentre B only and were not observed at Telecentre A. At this centre, users were empowering others through community organisations. This was about users using organisations to empower others by, for example, teaching vocational skills and paying school fees for the needy (refer to Chapter 6, Section 6.6; and Section 7.5 in this chapter for details). This could be attributed to the fact that Telecentre B users were more entrepreneurial than those at Telecentre A. The finding implies that sometimes what influences community empowerment depends on the activities that people engage in. Furthermore, at Telecentre B, users empowered community members through community participation which was not the case with users at Telecentre A.

Table 40: The Factors that Enabled Users of Telecentre A and Telecentre B to Empower their Communities

Factor	Telecentre A	Telecentre B
Sense of community	Helping others in the community would help in doing work quickly and easily	The feeling that the community can develop by its members
	Everyone should be knowledgeable	Everyone to be knowledgeable
	Helping others for telecentre benefits to be widespread	Helping others for the benefits to be widespread
	The feeling that if only one person is knowledgeable, the community would suffer	Hope for a better community and country
	Helping people out of love for people	Helping others out of love for people and God
Social cohesion	Helping people they are connected to	Helping people connected to
	Helping people because of friendliness	
Willingness of beneficiaries	Users empowering people who ask for help	Users empowering people who ask for help
	Users helping those who are interested in learning	Users empowering those who are interested in learning
Users' desire for personal advancements	Helping others for personal growth	Helping others for personal growth
	Empowering others with an aim of exposing oneself for prospects.	Helping others leading to personal happiness
	Reciprocity	Reciprocity
Community participation		Users taking parting part in activities that benefit the community
Community organisation		Empowering others through organisations
		Empowering others through clubs e.g. reading clubs

The rest of the factors applied in both telecentres. Specifically, these included: sense of community; social cohesion; willingness of beneficiaries; user's desire for advancements and community participation. Most of the aspects under each of these were similar though some differences still existed. For example, on *sense of community*, in addition to the common aspects (refer to Table 40 and Appendix J), at Telecentre A, users empowered others in the community because of the belief that when community members were knowledgeable, that would help in doing work quickly and easily; and because of the feeling that if only one person is knowledgeable, the community would suffer. On the other hand, the feeling that the community can develop by its members; and hope for a better community and country as part of sense of community influenced users of Telecentre B to empower their communities. For social cohesion, in addition to helping people they are connected to, users of Telecentre A helped others due to their friendliness of users which was not the case at Telecentre B. The other factor that had differences is users' desire for personal advancement. For Telecentre A, users helped others with an aim of exposing oneself for prospects such as, to have customers when they open a cybercafé. This aspect was not observed at Telecentre B. On the other hand, users at Telecentre B helped others because that led to personal happiness, an aspect that was not observed at Telecentre A. Despite that, at both telecentres, users were helping others with the hope of receiving same favour in the future when they experience a problem; and to achieve personal growth as aspects of users' desire for personal advancement.

There were similarities across community participation and willingness of beneficiaries as depicted in Appendix J.

7.8 Inhibitors of Community Empowerment

Results in both cases revealed that several factors hinder users in empowering the community. Some of these were similar. Starting with differences, there were gender issues that affected empowerment of the community at Telecentre B only. Specifically, it seems men do not respect women's advice when women make efforts in empowering the community.

The other four categories of factors were similar. These include psychological barriers: people's attitudes; limited availability of resources; and structural factors at both telecentres, with most of the aspects under each being similar and minor differences.

Although psychological factors affected users of both telecentres, the actual aspects differed between the two telecentres. At Telecentre A, there was lack of courage of the indirect beneficiaries in asking for help from users because their willingness to learn was paramount in the empowerment process; while for Telecentre B, it was lack of confidence of users in having capabilities to empower others that hindered the empowerment process of the community.

Furthermore, many differences were noted in the aspects of people's attitudes that hindered empowerment process of the telecentres. For Telecentre A, there were factors such as lack of appreciation of the role of the telecentre by community members something attributed to their low educational levels; and lack of interest in community members. On the other hand, the factors at Telecentre B included: people expecting handouts when users were making efforts to assist them mainly attributed to the fact the people in the community are business oriented; hatred among community members; and the elderly looking down upon users. Despite these differences, at both telecentres, discouraging comments by community members stopped users from empowering the community.

In addition, on limited availability of resources, for telecentre A, these mainly concerned users' personal resources and the community members; while for telecentre B, in addition to personal resources and community members, there were concerns on limited resources in the telecentre. For example, at Telecentre B, users expressed concern over limited equipment in the telecentre such as desks and computers; and limited services which affected their accessibility of telecentre service. The concerns over services and equipment at Telecentre B could be attributed to the fact that, Telecentre B is taken as basic telecentre where limited services are offered; while, on the other hand, Telecentre A is a multi-purpose telecentre which offered a variety of services and, indeed, had more equipment as compared to the ones seen in Telecentre B. Despite these differences under limited resources, at both telecentres, users indicated that they had limited finances for accessing telecentre services since all the services come with a charge. Although the incomes of users of Telecentre B were higher as compared to their counterparts, the general impression is that the incomes of users of both telecentres were low hence both groups finding services to be expensive. In addition, at both telecentres, there was low educational levels of community members which affected users in

reaching out to them because the ICTs required someone who is literate. The educational levels of rural communities in Malawi are low (Salanje 2006).

One notable difference was under *structural factors*. These factors concerned the structures for provision of services. These factors impeded community empowerment at both telecentres. However, at Telecentre B, there was poor customer care by staff which did not affect users of Telecentre A. On the other hand, at both telecentres, users indicated that unreliable power supply and poor internet connectivity negatively affected access to telecentre services. The similarity on power supply could be because both telecentres rely on power supplied by ESCOM which is generally unreliable (Kapondera & Chigona 2017).

7.9. Users Support Towards the Telecentre

The only difference that existed under users' support towards telecentres between the two telecentres is that users at Telecentre A contributed to security provision by ensuring that they did not vandalise the telecentre; and were serving as security guards by keeping an eye on whosoever visits the telecentre to ensure that they do not steal anything from the telecentre. The differences on security provision could be attributed to the fact that the community manages Telecentre A and that people feel the sense of ownership to information services when they are left in their hands (Harande 2009).

On similarities, just as users of Telecentre A made sure that they used the telecentre equipment properly and left them without any fault, similarly, at Telecentre B, users made sure they followed rules and regulations in using the equipment and did not steal them. The other similarity is that users at both telecentres supported the telecentres by contributing towards their sustainability. In this case, users at both telecentres were supporting the telecentre with an aim of making sure the telecentres continued operating. Firstly, sustainability was reflected in financial assistance that users rendered to the telecentres through paying for services. This helped in fixing faulty equipment and paying staff salaries among others, as both telecentres are expected to be self-sustaining. In addition, on sustainability, users at both telecentres helped in attracting others to the telecentres some of which did not know of the existence of the telecentre. Some of those attracted by users became telecentre frequent users.

7.10. Chapter Conclusion

This chapter aimed at comparing the two cases in this study. This cross-case focused on the differences and similarities on the profiles of the telecentres and the profiles of the participants. The focus has been on the themes that emerged from the data of the two cases. I adopted the multiple case approach because this contributed in producing rich data as the preliminary study had shown that the cases empowered communities differently. In addition, as indicated in Chapter 4 (methodology chapter), multiple cases help in theory building because this study also aims at building a framework for understanding the effectiveness of telecentres on community empowerment. Therefore, though the main aim of the study has not been to compare how the two different centres empower the community, the cross-case analysis has helped in revealing that when users get empowered, they empower the community at both micro and macro levels. Further the cross-case analysis shows several factors that enable and hinder the process in both telecentres.

Despite the differences and similarities discussed in the chapter, it can be concluded that:

- The same service may have different empowerment effects for different groups of individuals.
- The different services that telecentres provide sometimes have a bearing on the different empowerment effects of users.
- The individual characteristics such as occupation and age also play a role in the empowerment effects.
- What is considered as change depends on what people value and is contextual.
- The empowerment effects of users on communities sometimes depend on community needs.
- What enables community empowerment sometimes depends on the activities that people engage in.

The next chapter provides the discussion of the findings. It will also bring together the theories that emerged from these two cases.

CHAPTER EIGHT: DISCUSSION

8.1. Introduction

In this Chapter, I discuss the results in relation to existing literature on how telecentres empower communities. Throughout the chapter, I compare the results to those found in prior studies in the literature on how ICT4D in general and telecentres in particular empower their communities; discuss the new findings that my study brings to the literature; and I interpret the results. I present this section based on five main themes which revolve around two research questions posed in the previous chapters. Specifically, in Section 8.2, I discuss how telecentres empower their users. Section 8.3 discusses how empowered telecentre users can in turn empower their communities. Consequently, this section answers research question 1: *how do individuals empowered by telecentres empower communities?* Section 8.4 discusses what enables or hinders empowered users in empowering their communities. This section, in turn, aims at answering research question 2: *what are the factors that enable these empowered users to empower their communities?*

In relation to contributions, the discussion highlights the contributions of my study towards literature on the effectiveness of telecentres in eliminating digital exclusion by focusing on how telecentres empower their communities. The discussion in this chapter also highlights the contributions of my study in relation to the use of telecentres in developing countries and the concept of empowerment in the context of ICT4D in general. In particular, the discussion has led to the development of the framework for understanding community empowerment that is discussed in Section 8.5. The theoretical contributions are clearly presented in 8.7.

8.2. Telecentre's Influence in Empowering Users (Empowered Users)

The study reinforces earlier studies (such as Aji et al. 2010; Grunfeld 2011; Attwood et al. 2013; Osman & Tanner 2017; Abubakar & Dasuki 2018) that the use of telecentres leads to individual user empowerment. The findings indicate that this mainly occurs at intrapersonal, interactional and behavioural empowerment levels of individual empowerment. The findings add to the extant literature by showing how telecentres empower their users under each empowerment forms of these types of empowerment. I discuss this in the paragraphs that follow.

Similar to existing literature, my study finds that telecentres lead to intrapersonal empowerment; this is about how a person views themselves in the context of ICTs. Under intrapersonal empowerment, in line with literature, my study shows that telecentres lead improvement in psychological skills of users by improving self-confidence (Attwood et al. 2013; Gigler 2014; Osman & Tanner 2017; Abubakar & Dasuki 2018). However, this works for those who do not have such skills before using the telecentre. Furthermore, the findings of my study agree with literature that telecentres lead to learning and self-development of users by increasing ICT skills (Osman & Tanner 2017); and ICT confidence and ICT self-esteem (Attwood et al. 2013). The findings also reinforce previous studies which showed that telecentres help users increase finances by, for example, opening cyber cafés and getting jobs after using information on job vacancies available within telecentres (Soriano 2007; Hansson et al. 2010; Chigona et al. 2011; Buhigiro 2012); and that telecentres help in increasing knowledge base such as school related information and reasoning skills (Soriano 2007; Rega et al. 2013). My study adds to this literature on learning and self-development revealing that through provision of library and readings space, telecentres help users increase their performance at school; and that computers skills from telecentres act as a basis for tertiary education. Although, Osman and Tanner's (2017) study found that telecentres help in shaping the careers of others, however their study did not account for computers acting as basis for tertiary education as it is the case in my study.

The findings in my study buttress earlier studies that telecentres lead to interactional empowerment of users which is about how users interact with their environment. In line with literature (e.g. Osman & Tanner 2017), the findings of my study show that telecentres lead to interactional empowerment of users by increasing user's awareness of issues as through telecentres, users become aware on what is happening in their surrounding environment, country, and world at large. Furthermore, in agreement with studies in the literature (e.g. Hansson et al. 2010; Chigona et al. 2011), this study finds that telecentres lead to *career development* by enabling users to get employed after participating in computer tutorials or accessing information on available jobs through the Internet in the telecentres. Additionally, my study provides new insights on career development as the findings show that through computer tutorials, telecentres help in shaping plans of opening a cybercafé. Knowledge of computers in opening cybercafé is vital (Osman & Tanner 2017; Noruwana et al. 2018). Further, my study reinforces literature that association with telecentres helps increase

people's status symbol as they gain respect and trust (Oreglia & Srinivasan 2016). While in previous studies, the gaining of respect was only applied to those working in the telecentre, in my study, this respect is extended to those using telecentres. The findings also support existing literature (Soriano 2007; Cheuk et al. 2012; Alao et al. 2017; Noruwana et al. 2018) that telecentres are generally considered as social spaces where people interact with one another and develop friendships. Previous studies by Noruwana et al. (2018) and Kolko et al. (2014) found that through the Internet for example, telecentres allow users to stay in touch with their family; and that use of ICTs in public spaces enables people to interact with friends online through social networks such as Facebook respectively. My study extends findings of Noruwana et al.'s (2018) study by showing that users use telecentres as social spaces for interaction with others outside family thereby extending their social networks. It also extends the findings of Kolko et al.'s (2014) study as in the current study, telecentres enable physical social interaction. Thus, even if some users could be using the telecentres to interact with people online, they still value the interaction they have with fellow users of the telecentre.

The findings of this study reinforce Grunfeld's (2011) and Osman and Tanner's (2017) findings that telecentres aid users in increasing leadership roles and skills. While in Grunfeld's study this was applicable to those in leadership positions of management of telecentres, and in Osman and Tanner's study it was through special entrepreneurship programmes in the centres; my study shows that by simply using telecentres, users earn a level of trust in their communities. This trust eventually translates into assumed capabilities with the communities trusting the telecentre users with respectable positions in various sectors such as schools and churches. Therefore, the current study's results imply that not only putting people in managerial positions and offering leadership training will enhance leadership skills but also their association with the telecentre through usage as they become reliable in their communities. In the context of telecentres, it implies that telecentres provide opportunities for increasing users' leadership skills.

In line with some studies (e.g. Osman & Tanner 2017), the study shows that the use of telecentres leads to behavioral empowerment. This is about telecentre users engaging in activities that aim at addressing needs in a particular environment. The current study shows

that telecentres lead to community organization and community participation. However, the outcomes depend on the type of users.

The main finding on how telecentres empower their users in this study is that individual characteristics have a role in how users get empowered. Due to this, for each type of individual empowerment, empowerment takes different forms between different groups of people within and across telecentres. Specifically, on intrapersonal empowerment, on learning and self-development skills, Telecentre A users experienced empowerment through increasing performance in school because most users were students. In addition, analysis shows that computers skills act as basics for users' studies and help users pursue career in ICT. This evidence was only available at Telecentre A where the majority of users were students with no career before using the telecentre while at Telecentre B with a majority of mature users with jobs, they were empowered in different ways such as starting organisations. Therefore, this finding implies that the type of users has a bearing on the type of empowerment that may be experienced.

The other main finding is that the type of activities that people engage in also has a role in the type of empowerment that they experience. For example, much as telecentres lead to leadership roles of their users due to association with telecentres and increased confidence, for secondary school students, they attained leadership roles in schools such as being a leader in a specific subject; while for those active in churches, they ended up as leaders in churches. Availability of similar services within the community also plays a role in how telecentre users get empowered. For example, at Telecentre A, users showed an improvement in performance at school because they use the library available within the telecentre; while for Telecentre B, there is a public library within the community and that some schools within the community have libraries.

The other main finding under this theme is that, largely, the majority of users belong to specialist groups of users such as youth and students. This reinforces earlier studies such as Ullah (2016; 2017) who argues that telecentres have potential of empowering those who are already powerful and in the end disempower others. However, as discussed in the

section that follows, these benefits went beyond users as they had empowerment effects at community level. Those who benefited from the users did not just belong to the same categories as of users but different categories. For example, at Telecentre A, there were youth who empowered the elderly by teaching them how to use ICTs; and there were some relatively educated users who empowered primary school dropouts by sharing some information they acquired from the telecentre thereby increasing critical awareness.

8.3. How Telecentre Users Empower the Community

This section aims at discussing findings in relation to the research question 1*: how do individuals empowered by telecentres empower communities?* This thesis has adopted the view that empowerment is about agency which is about making choices (Abubakar & Dasuki 2018). This implies that the empowered users can choose to empower community members by giving them the freedom to choose what is good for them e.g. by giving them knowledge and community members decide what is best for them. Indeed, the study reveals that empowered telecentre users empower others in their communities. From the findings, it is clear that when telecentre users get empowered in ways like the ones explained in Section 8.2, they also empower the community at micro and macro levels. The details of that aspect of empowerment are discussed in the sections that follow.

8.3.1. Empowered Users Influencing Community Empowerment at Micro Level (Individual Empowerment of Community Members)

This section discusses how telecentre users influence community empowerment at micro level which is also known as individual empowerment of community members. The findings reveal that this takes place in six different forms namely: learning and development skills of others; career development for others; psychological skills for others; leadership development for others and critical awareness skills; and increasing cognitive frame for others which are put in two main types of empowerment: intrapersonal and interactional empowerment. Some of these findings are in line with previous studies while some are novel findings of my study as discussed in detail in the paragraphs that follow.

Previous studies show that ICT users lead to *intrapersonal empowerment of others*. In line with previous studies (such as Oreglia & Srinivasan 2016), this research shows that when people learn something, they teach others thereby leading to learning and development skill for others such as increased computer skills. My study, however, goes beyond the findings of the previous studies by showing that these empowerment effects through users go beyond family boundaries especially in traditional communities. Specifically, my study adds to literature on how ICT4D users contribute towards learning and development skills of others who do not use such ICTs by showing that users help increase performance of others. This is linked to the knowledge shared with them; and through encouraging fellow students in using the library within the telecentre. The study further shows that users, especially working with organizations that started after using telecentres, empower others by paying school fees for others and giving out startup capital for businesses so that they become independent. My study further provides novel insights on how users of ICT4D projects lead to intrapersonal empowerment of indirect beneficiaries. Specifically, users help in increasing psychological skills of others by, for example, raising their confidence when they take part in social political activities. Finally, telecentre users increase the cognitive frame of others by removing negative mindsets towards ICTs, which, eventually, may increase telecentres' user base because some people do not use telecentres because they have negative attitudes of the facilities (Cheuk et al. 2012; Vannini et al. 2013).

The current study also contributes towards *interactional empowerment* of indirect beneficiaries. Firstly, users lead to career development and employment opportunities of others in which users employ others e.g. to work in their cybercafé thereby being essential in the reduction of unemployment rates which are high in developing countries (Chigona et al. 2011; Chikumba 2010). Just like previous studies on telecentres (such as Osman & Tanner 2017), the findings confirm that users are essential in increasing critical awareness by informing others about existence of telecentres within the community. Additionally, the study shows that critical awareness is increased by having users inform those who do not use the telecentre of news, current affairs and events.

The main finding about how users empower the community at micro level is that users tend to empower those they are mostly connected to. As pointed out in the previous chapters, most

of the indirect beneficiaries in the study were connected to the users. This, therefore, may somehow limit the benefits of telecentres to the community especially at individual level as users' mostly benefit a few people in their circles. Besides, it can be deduced that some of the indirect beneficiaries already exhibit some form of empowerment. For example, some of these individuals approach users for help, which implies that indirect beneficiaries exhibit a choice, an important characteristic of empowerment (Kleine 2010). After all, when the powerless such as the poor depend on the educated ones for ICT related help, telecentres fail to enhance confidence in the powerless in relation to usage of ICTs because the reliance on the empowered means the powerless themselves cannot use the ICTs (Ullah 2017). Thus, although users empower other groups within the community, their empowerment effects on community members may be limited to a few people in their circles and those who are somehow empowered, leaving behind the powerless or less advantaged. Therefore, instead of removing digital exclusion, telecentres may exacerbate the gap. This may also lead to telecentres empowering advantaged groups while at the same time disempowering the less privileged within the communities.

The other main finding on how users empower others is that empowerment of indirect beneficiaries sometimes takes place indirectly. A good example in this study is on leadership development for others. As findings show, there is evidence that users help in improving leadership roles of community members. Unlike other forms of empowerment which were almost direct (such as sharing ICT skills because users themselves are competent with ICTs), this leadership development took place indirectly as users who were not leaders themselves helped indirect beneficiaries gain leadership roles. Specifically, the study shows that when indirect beneficiaries gain computer skills, they become active in class which makes them be chosen as leaders. In this scenario, directly, there is improvement of computer skills because that is what indirect beneficiaries learn from users. However, leadership roles are also gained indirectly due to the computer skills gained and not necessarily that users shared leadership skills. Therefore, just as telecentres have both intended and unintended consequences or outcomes on users (Kumar & Best 2007; Chigona & Licker 2008), users equally have intended and unintended outcomes on their beneficiaries as they are empowering their communities.

The findings show that not only users get involved in empowering the community but also their indirect beneficiaries. For example, at Telecentre A, one indirect beneficiary was able to teach others such as family and friends thereby extending the empowerment effects of telecentres further. At Telecentre B, there was also an indirect beneficiary who empowered his community by employing others to be working in a shop he opened after acquiring skills and capital from one organisation that was opened through telecentres. This indicates that indirect beneficiaries are essential in extending the empowerment effects of telecentres to their communities. I discuss this further in Section 8.6 where I discuss the concept that I call 'empowerment flows'.

Finally, the main finding is that users mostly have an effect on intrapersonal and interactional empowerment of others. As for behavioural empowerment, none of the indirect beneficiaries showed that evidence. This may be attributed to the fact that even at individual user empowerment, evidence of behavioural empowerment was limited. The implication is that the type of user empowerment has a bearing on the type of empowerment of the indirect beneficiaries. Thus, the more a user is empowered, the more their indirect beneficiary is equally empowered.

8.3.2. Empowered Users Influencing Community Empowerment at Macro Community Level

There is evidence that users lead to macro community empowerment. At both telecentres, users led to organizational empowerment. However, how this took place differed based on the type of the communities and type of the telecentre. Specifically, at Telecentre A, users empowered the community by contributing towards decisions within the community. On the other hand, at Telecentre B, organizational empowerment was to do with formulation of clubs and organizations. The possible explanation of the differences could be: Telecentre A is in a rural community where decisions are made by the community themselves unlike the other where decisions are made by appointed authorities; and that Telecentre B is more entrepreneurial possibly because it is owned by the entrepreneurs whereby users could also be encouraged to be entrepreneurial. Users also lead to social empowerment. For example, users contributed to efficiency in delivering examinations by opening a cybercafé that was helping schools in printing out examinations for schools that did not have ICTs such as

photocopiers. The findings also show that users of telecentres lead to social empowerment by contributing towards hygiene within the community. Thus, after accessing information on the internet on how the community can lead hygienic life, users were able to advise their communities on such matters. For example, they led to drilling of boreholes which did not exist before.

In summary, Section 8.3.1 and Section 8.3.2 have revealed that benefits of ICTs go beyond individual users. The findings confirm Dasuki et al.'s (2014) argument that ICT users are social actors that interact with multiple ICTs and multiple people. It extends studies in the ICT4D literature which found that when people learn ICTs, they teach their family members (Oreglia & Srinivasan 2016). It adds new knowledge in the ICT4D literature by showing that ICT-enabled empowerment of users of traditional projects especially telecentres goes beyond them as users empower others such as family, friends and colleagues most of whom do not use telecentres. The section further shows that, apart from empowering individuals, users empower people in the community as well as the community at large. The other main finding in this section is that users have more impact at micro level as compared to macro level. The following section discusses what enables or hinders users in empowering their communities.

8.4. Factors that Influence Community Empowerment

One of the objectives of the study was to investigate what influences community empowerment to answer research question 2*: what are the factors that enable these empowered users to empower their communities?* Analysis of the cases shows that there are both enabling and inhibiting factors to community empowerment through telecentre users. The sections below discuss and interpret these factors.

8.4.1. Enablers of Community Empowerment

When it comes to studies on the enabling factors for community empowerment, no attempt has been made in understanding the factors that enable users of traditional ICT4D projects such as telecentres in empowering their communities. Therefore, this study brings in novel findings in such contexts. Particularly, the study shows that sense of community, social

cohesion, users' desire for advancements, beneficiaries' willingness for help, community participation and community organisation are enablers to community empowerment

The findings of this study confirm the relevance of *social cohesion* in converting individual empowerment of users into community empowerment more specifically at micro level. Consistent with research in the fields of health and community psychology (Peterson & Huyer 2004; Peterson et al. 2005), social ties are important in ensuring that people share what they know with others they are connected to such as families, friends and colleagues. However, my study further finds that the influence of social ties differs among the communities. Specifically, the influence of social ties was more prominent at telecentre A while at Telecentre B was less. Although some users claimed to be empowering people whom they are not connected to at Telecentre A as presented in Chapter 5, most of the beneficiaries were connected to users. A possible explanation of the difference could be simply because the activities that most of users at Telecentre A engaged in were to do with personal activities for personal development such as being a student; while at Telecentre B users' activities had to do with impacting the whole community such as working through organisations training others and clubs hence would not be concerned with people they are connected to. This implies that social ties are essential in enabling community empowerment where people use services for personal development unlike where activities target communities at large. One novel finding on social cohesion is that friendliness of users helps in converting individual empowerment into community empowerment because when users are friendly, people easily get connected to them and approach them for help.

Sense of community proved to be a strong enabler to community empowerment. My study extends the importance of sense of community in the conversion of individual user empowerment effects of traditional ICT4D on their communities and indirect beneficiaries who may not have a chance to use ICTs for various reasons such as lack of finance. This is because users empower communities because working with others help users to finish work easily and quickly, they feel an obligation because the community can only develop by its members; users identify themselves as members of the community; and that users hope for a better community. Further to love for people which influences people to empower their communities (Talo' et al 2014; Mannarini et al. 2014; Fari 2015; Ahmad & Talib 2016),

users also empower their communities out of love of God. My study adds novel insights on sense of community by showing that users help others so that every member of the community should be knowledgeable; and for the benefits of telecentres to be widespread. Furthermore, users engage in empowering the community when they feel that if only them are knowledgeable, then the community would suffer in case they have relocated to other places or die. However, this aspect of sense of community is mainly applicable to people who are originally from those communities. For example, in this study, the feeling that if users do not empower others then the community would suffer in their absence was barely observed at Telecentre B where it is relatively a township where people come from various places and may leave the community at any other point for other locations. This means that where people are from the same community, they will feel more attached than where they will only come say for work hence sense of community will play a great role in such former communities.

Another important enabler of community empowerment through telecentre empowered users is *users' desire for personal advancements*. Reciprocity, which is the act in which people or groups give each other things which could be of help or advantages (Wasko & Faraj 2000), influences telecentre users in empowering their communities. One interesting finding under reciprocity is that users were not necessarily expecting help from the same people they helped but the community members, mostly people other than the ones who get help from them, a concept called indirect reciprocity (Kollock 1999). The findings of this study are also in line with the literature that shows desire for personal growth such as learning new things through peer learning (Wasko & Faraj 2000; Ardichvili 2008); and personal happiness because it feels good to help others (Kollock 1999) influence users in helping others. My study adds to literature by showing users help others with an aim of exposing oneself for prospects or get rewards. For example, people teach others ICTs for free to build reputation and making themselves known in the community so that when they open cybercafé people will have already known them and would use their services.

These results entail that *community organisations* are a strong enabler of community empowerment especially for collective level. However, this will only work where there exists community organisations and clubs. For example, in this study, community organisations

were identified as enablers to community empowerment for users at Telecentre B only because there were organisations and clubs through which community members could be empowered. This also implies that sometimes what enables community empowerment depends on the activities that people engage in. Just as expected, *community participation* leads to community empowerment. After users take part in social political activities such as writing petitions and demonstrations, changes are made in the communities. This finding is consistent with literature in other fields such as health and community psychology which indicates that through participating in socio-political activities, empowered people empower others psychologically by, for example, increasing their confidence (Itzhaky & York 2000; Peterson & Hughey 2004; Mannarini et al. 2014); and that increases critical awareness (Cicognani et al. 2015). The current study confirms these as it shows that there is increased confidence and critical awareness among those who participate in socio-political activities with those who get empowered by the use of the telecentre. Much as this prior literature is important, my study provides empirical evidence on how community organisation and community participation convert telecentre user empowerment into community empowerment, this is something that is lacking in the ICT4D literature in general and in the literature on telecentres specifically.

In addition to factors that relate to what is available in the literature on factors that influence community empowerment, my study provides a new factor, beneficiaries' willingness for help such as finances and interest in learning. This helps because users are sure of what the needs of beneficiaries are. Thus, even when users have a sense of community, for example, sometimes they will fail to reach out to people when they do not know if those people need help. Moreover, the concept of empowerment does not just focus on those who have power (in this case users) to bestow it on others but their collaboration with those who want it (indirect beneficiaries) to create conditions necessary for empowerment (Heritage & Dooris 2009). Therefore, agency and motivation i.e. willingness in the beneficiaries is vital in empowering the community.

8.4.2 Inhibiting Factors to Community Empowerment

The study shows that community empowerment is hindered by the following: structural factors: limited availability of resources; people's attitudes; psychological factors and gender issues.

Availability of resources such as finances (Imani et al. 2012; Kapondera & Chigona 2017), and limited equipment and services within the telecentre (Lwoga & Chigona 2019); structural factors such as slow Internet and unreliable power supply (Huerta & SandovalAlmazán 2007; Mtega & Malekani 2009; Cheuk et l. 2012; Kapondera & Hart 2016; Kapondera & Chigona 2017; Lwoga & Chigona 2019) had already been established as factors that affect users' accessibility of telecentre services. This study extends the findings of the previous studies by showing that this negative effect on accessing telecentre services eventually has a negative impact on the empowerment process. For example, when one does not have enough money to access services, they will end up having limited knowledge which will impact on their possible contributions to the community. The study also shows that people's attitudes such as lack of appreciation of and interest in the role of ICTs; and negative perception of ICTs among community members hinder community empowerment; hatred; and looking down upon the users. The current study also finds that psychological factors especially lack of confidence of users with computers hinders users from teaching others. According to Osman and Tanner (2017), only when one is confident enough can be able to teach others. Lack of courage for beneficiaries to ask for help negatively affects community empowerment because users help those who have shown interest and the interest helps in letting users know what beneficiaries need. Finally, gender issues affect female users in empowering the community. This is particularly true for women users as some men seem not to take heed of women's advice.

Accordingly, the main finding is that most of these negative attitudes on ICTs and telecentre users may be in existence because some community members are not aware of the benefits that the telecentres may provide. This may be because telecentres adopted a top-down approach which leaves out community members. Community members are thus unaware of what is happening in the telecentres. In addition, there seem to be lack of awareness campaigns by telecentre managements. Although the findings on how users empower their

communities show that they increase awareness of the telecentres, this awareness is limited to a certain section of populations such as fellow students, colleagues and their families omitting all the other parts of the population. In this case, technology is being politicised. At the same time, the practice may lead to the empowerment of certain individuals who are linked to the first group of people thereby empowerment effects of telecentre on communities may remain restricted. It may be that awareness campaigns stipulating the services and benefits that telecentres help may solve the problem. This is further discussed in the implications for managers (Section 9.5). The other main finding on inhibiting factors is that some of these factors such as limited availability of services and equipment within the telecentre also deter other potential users from accessing the services.

8.5. Framework for Understanding the Role of Telecentres on Community Empowerment

Figure 18 shows the framework that has developed from the data of the two cases. What follows is a brief explanation of the core concepts.

The findings clearly indicate that the empowerment process starts with having a telecentre that provides access to ICT and other services in the community. When some community members access and use the services, they get empowered in three ways: i) through intrapersonal empowerment such as gaining psychological skills which includes increasing confidence and learning and development which, in the end, improves how users view and think of themselves; ii) gain interactional empowerment; thus improvement in how users interact with their environment which, among others, include increased critical awareness, improved social status and interactions/relationships, career development and leadership development; and iii) behavioural empowerment by enabling community participation.

In turn, empowered users empower their communities at micro and macro levels. At macro level, this is concerned with empowerment of individuals such as family and friends. This mainly occurs at intrapersonal level and interactional level. At intrapersonal level, users help indirect beneficiaries gain psychological skills; increase cognitive frame by changing the mindsets of community members towards ICTs and telecentres; and improve learning and development of community members. At interactional level, users help improve the way

others interact with their environment through enhancing career development and employment opportunities for others, raising critical awareness of issues within the country at large and awareness of the existence of the telecentre and the services and the benefits that it provides; improving leadership skills for beneficiaries. For macro level empowerment, users lead to community organisation empowerment by leading to formulation of organisations and clubs; and taking part in decision making towards the changes within the community. They also lead to social empowerment by improving social services with the community as they lead to efficiency in the administration of examinations and improvement in health.

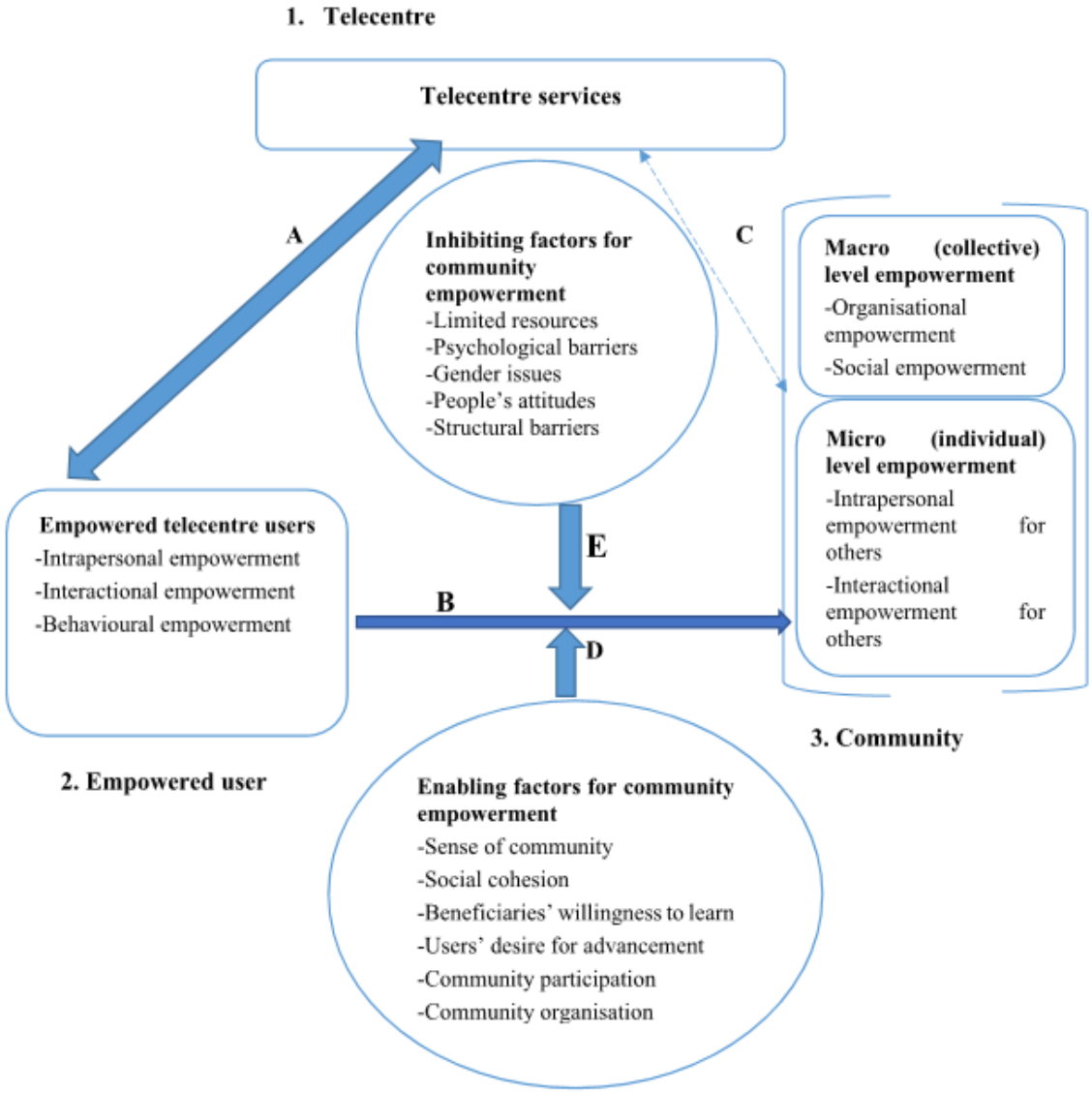

Figure 18: A Framework for Understanding the Role of Telecentres on Community Empowerment

NB: -Straight arrows indicate direct relationship between the concepts.

-Dashed arrow indicates indirect relationship between the concepts.

-The arrows do not represent any sequence but rather the relationship between the concepts in the framework

Clearly, one can conclude that individual empowerment of users can be transformed into community empowerment. However, this transformation is enabled or hindered by a series of factors. Hence the existence of Arrows D and E. Arrow D stands for enablers to community empowerment. Thus, even when users want to empower their communities, one or more of these enablers need to be in place. These include social cohesion, sense of community, beneficiaries' willingness for help, community participation, community organisations and users' desire for personal advancements. Social cohesion leads to empowerment as users help people with whom they have some sort of affinity and connection and out of friendliness. For sense of community, users empower others when they feel that work can be quickly done when working together with others; the feeling that everyone should be knowledgeable; that benefits of telecentres should be widespread; hope for a better community; out of love; the feeling that if only one person is knowledgeable then the community would suffer in their absence; and that the community can be developed by its members. Beneficiaries' willingness for help also acts as an enabler of community empowerment as users help those who show interest in learning and ask them for help. The other factor is users' desire for personal advancements that include helping others for personal happiness, for reciprocity, for personal growth, and helping others with an aim of exposing oneself for other future opportunities. However, the way these factors work sometimes vary based on the type of community telecentres are serving; this has been discussed in Section 8.

Arrow E represents inhibiting factors to community empowerment. Thus, even when enabling factors are in existence some users will not empower their communities if there also exist hindering factors. These include limited resources, gender issues, psychological barriers, structural barriers and people's negative attitudes towards telecentres and users. Structural factors are to do with the telecentres and include poor internet connectivity, unreliable power supply and poor customer care. Limited resources of users include lack of laptops and inadequate finances for accessing services; on the part of telecentres there is limited services and inadequate equipment such as computers and desks which impede users in accessing services; also, low educational levels of community members and lack of English language

masterly among community members impedes the empowerment process. Gender issues hinder female users in empowering the community because culturally, some men would not take advice from women. Psychological factors that hinder users from empowering the community include lack of confidence of users to empower others and lack of courage among beneficiaries to ask for help. Finally, people's attitudes that impede empowerment process are beneficiaries expecting handouts when being helped; discouraging comments from the community; hatred among community members; looking down upon others; and negative perception of ICTs and lack of interest in ICTs.

Further to these core concepts of the framework, the findings reveal that telecentre users contribute towards a telecentre's sustainability, I discuss this in detail later in Section 8.7. Briefly, this takes place through the support that users give to telecentres. This support takes the form of financial support as well as attracting others to telecentres and through security provision towards telecentres. This support is represented by Arrow A which is a double arrow to indicate mutual relationship between telecentres and users. The double dashed arrow, Arrow E, shows an indirect mutual relationship between the telecentre and the community. The relationship exists because the telecentre empowers the community through users and the community supports the telecentre by, for example, allowing it to exist within the community. It is an indirect relationship hence the dashed arrow.

The framework presented in this section extends the initially Research Framework in Chapter Three (Figure 4 in Section 3.4.2) in this thesis. For instance, just as the framework proposes, when users access telecentre services they get empowered; and the users in turn empower their families and friends and colleagues micro level empowerment (individual empowerment of community) and lead to macro empowerment. In addition, as the framework suggests, the users' role in empowering the community is enabled by several factors. Furthermore, the influence of telecentres on users reveals more aspects such as improved performance under learning and self-development for interactional empowerment which did not exist in the research framework. In addition, the data presented in this chapter reveals additional factors that enable community empowerment.

8.6. Empowerment flows

Collectively, and when taking into account of both individual empowerment and community empowerment and the influence of the former on the latter, there appears to be evidence of empowerment flows in relation to telecentre use. This involves the process of how empowerment moves from empowered telecentre users to the community; and how sometimes indirect beneficiaries get involved in the community empowerment. Specifically, this study shows that there are two different empowerment flows of which the other one is longer than the other. Figure 19 captures the different flows that were evident in this study.

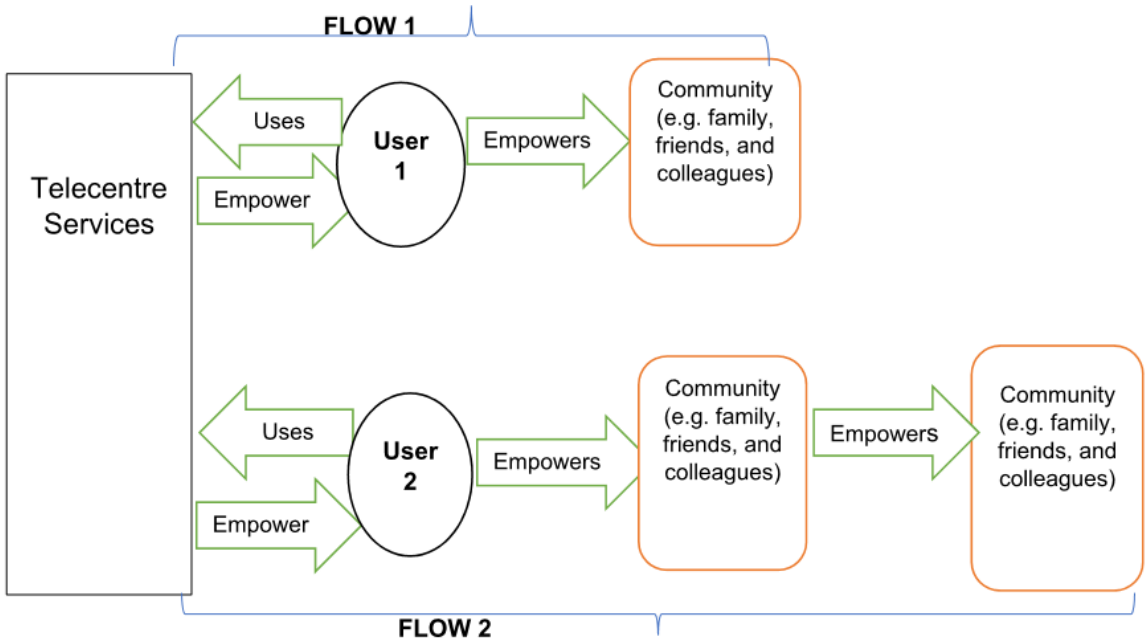

Figure 19: How Community Empowerment Takes Place with Different Users: Empowerment Flows

The shorter one is about when telecentre users get empowered, these in turn empower their community such as teaching others in their immediate network such as family and friends how to use computers thereby leading to micro empowerment. This flow ends there. From Figure 19, the shorter route is represented by Flow 1 in which User 1, who, when gets empowered through using telecentre services, empowers the community which could be family, friends and colleagues as well as the community at large. The shorter route could also be said to be concerned with the immediate community. For the longer route, Flow 2, (represented by User 2), the study shows that the indirect beneficiaries that benefit from the empowered users also empower others that are connected to them e.g. through teaching others (families) on how to use computers and sharing information as explained by

TAIDBN14 in Section 5.7 of Telecentre A; and employing other people and indicated by TBIDBN8 in Section 6.5 of Telecentre B. Some other indirect beneficiaries also indicated the same. However, I was not able to gather this detailed information on the ones who had benefited from the indirect beneficiaries as already pointed out in Section 5.8, though evidence of this was talked about in the interviews. Theoretically, flow 2 could be endless and could be associated with extending empowerment effects of telecentres on extend community.

Since these are two different flows, the people involved in Flow 1 are not the same as in Flow 2 especially when it comes to indirect beneficiaries. However, for some users, these sometimes could be the same i.e. a user having effect on both empowerment Flow 1 and Flow 2. For example, one user can empower three people in their network. Out of these three people, one can choose to empower others as well hence same user having an impact in Flow 1 and Flow 2. This was the case with evidence from Telecentre A where TAUN10 empowered more than three who included a wife, friends, relative and colleagues. Out of these, only a colleague showed evidence for empowering others in the community. While for some users, they only have an effect of Flow 1. For example, TAUN2 who empowered her father and sister, both of these beneficiaries used what they gained from her for their own personal development without any evidence of teaching others.

From these findings, it can be deduced that the empowerment effects of telecentres do not end at users' immediate beneficiaries but rather, the benefits go beyond them to include beneficiaries of users' beneficiaries. In other words, in understanding the role of telecentres in empowering rural communities, the telecentre has indirect beneficiaries who include user's immediate beneficiaries; and that the users have indirect beneficiaries who include immediate beneficiaries of users' immediate beneficiaries. Here, two categories of indirect beneficiaries exist: the ones who benefit directly from the users; and the ones who benefit from the ones who have benefited from users. This is a valuable contribution of my study as previous studies around community empowerment have not made reference to empowerment flows. Therefore, in understanding how the telecentres empower their communities, researchers should focus on users, the ones benefiting from users, and the ones who benefit from the first group of indirect beneficiaries.

8.7. Theoretical Contributions

Throughout this chapter, under every theme, I have identified the contributions and research implications of my study. The aim of this section is to summarise and categorise these implications to theory. This study offers six theoretical contributions which are all discussed in the subsequent paragraphs.

Firstly, the study furthers our understanding of how telecentres empower their communities. Specifically, the study offers insights in how users of telecentres can be mediators in fostering community empowerment of telecentres. As stated throughout the thesis, there have been limited studies (e.g. Oreglia & Srinivasan 2016) that focus on how users of ICT4D projects extend the benefits to wider communities. The limited studies found that users of ICTs share knowledge with their families. My study furthers this understanding as it provides information on how users exchange knowledge, information and skills with indirect beneficiaries beyond families to include friends and colleagues of users who are mostly not even accessing or using the telecentres for various reasons such as lack of finances and lack of time to participate.

The second contribution is that the study both reinforces and provides new insights on the factors that lead to community empowerment. Specifically, the study shows that sense of community, social cohesion, users' desire for advancements, willingness of beneficiaries for help, community participation and community organisation influence community empowerment. A further contribution on these factors is that the way these factors work, varies depending on the community. For example, social cohesion is more effective where people are concerned with activities that affect individuals unlike the communities in which the activities that people engage in involve developing the community at large because they are not concerned with individuals that they are connected to. A further contribution to the social cohesion is that aside social ties and networks that characterise the factor in the literature (Peterson & Hughey 2004; Gomez & Pather 2012), my study shows that friendliness of users which eventually helps in users being friends with indirect beneficiaries such that they can easily be helped leads to community empowerment. Similarly, the study provides more insights on sense of community and users desire for personal advancements as shown in Section 8.4.1. On sense of community, firstly, it provides more indicators. Apart

from having users empowering the community due to the realisation that collective goals can be achieved when community members work together and due to the feeling of an obligation, which are in existence in the literature; hope for the better community (Fari 2015; Ahmad & Talib 2016), my study found that empowered users were empowering the community so that all community members should be knowledgeable; for the benefits of the telecentre to be widespread; and because of the feeling that if only one person is knowledgeable then the community would suffer in their absence; and out of love of God. Secondly, the study shows that sense of community is more effective in communities where people are permanent members. Thus, in the event that users are not simply migrants into the community as was the case with Telecentre B, the feeling that when they leave such a community it would suffer does not influence them empower their community. This is because they do not belong to that community in the first place. Furthermore, on personal desire for advancements as an enabler to community empowerment, in addition to helping others for personal happiness; personal growth and reciprocity; the study shows that users also help others with an aim of exposing oneself for future opportunities. The study has also provided empirical evidence of how community participation and community organisation aid in community empowerment in ICT4D in which these factors have only been considered empowerment outcomes. The study further reveals one novel factor, willingness of beneficiaries, as a strong enabler to community empowerment through telecentre users. Thus, even when users would be empowered to empower their communities, expression of interest in learning and to be helped by indirect beneficiaries is important. This willingness of beneficiaries helps users in knowing who requires help and the type of help that they need.

A third contribution of the study is towards Social Capital Theory. The theory emphasizes the importance of relationships such as ties and networks (Thapa & Sein 2010; Yusop et al. 2010; Fari 2015). Particularly, the study contributes towards this theory by showing that the theory can be used in understanding empowerment as a process. Previous studies (such as Díaz Andrade & Urqubahart 2009; Thapa & Sein 2010) have used Social Capital Theory in understanding how ICTs empower people. However, these have used Social Capital Theory as an outcome. For example, a study by Thapa & Sein (2010) aimed at exploring the relationship of ICT4D with socio-economic development using Social Capital Theory and found that ICT4D contributed to social capital aspects such as facilitating the building of the relationships between people in communities and authorities. However, my study shows

evidence that the theory can be used to understand the empowerment process. Particularly, there are three elements of the theory that can be used namely: sense of belonging which is about individuals feeling secure when surrounded by and working with others; network and ties; and reciprocity thus people being assured of reward have proved to be essential in understanding the empowerment process. Social cohesion study as enabler of community empowerment can be likened to social networks and ties in the theory. Sense of community in my study can be likened to sense of belonging of the theory; reciprocity is part of users' desire for personal advancements. My study further reveals more insights on what characterises some of these factors as already alluded to above.

The fourth contribution is that my study provides novel theoretical insights by providing a model which helps in understanding the process through which individual empowerment is converted into community empowerment. As far as this study is concerned, there is no model in the literature that offers the link between individual empowerment and community empowerment. A few frameworks that exist only focus on individual empowerment. For example, Aji et al.' (2010) framework which only focuses on empowerment of individuals through telecentres based on Zimmerman framework. In the end, the framework developed in this study will help in considering empowerment as both a process and an outcome. The main contribution here is on the process itself. Existing studies have mainly discussed the empowerment outcomes (e.g. Aji et al. 2010; Gigler 2011; Grunfeld 2011; 2014; Alao et al. 2017; Mukherjee 2017; Osman & Tanner 2017). The framework developed (Figure 18) extends the Research Framework presented in Chapter 3. For instance, just as the framework proposes, when users access telecentre services they get empowered; and the users in turn empower their families and friends and colleagues micro level empowerment (individual empowerment of community) and lead to macro empowerment. In addition, as the framework suggests, the users' role in empowering the community is enabled by a number of factors. Furthermore, the influence of telecentres on users reveal more aspects such as social status and interactions/relationships as an aspect of interactional empowerment; and improved performance under learning and self-development skills which did not exist in the proposed framework and in the literature. In addition, the developed framework shows more factors that enable community empowerment. The model also shows inhibitors of community empowerment. Moreover, previous studies in ICT4D especially on traditional projects have only focused on individual empowerment (such as Samah & Badsar 2013; Alao et al. 2017;

Osman & Tanner 2017) and community empowerment as independent (such as Gigler 2011; 2014). This study and the framework developed in this study bring in a link between individual empowerment and community empowerment. More specifically, it shows how empowered telecentre users empower their communities. Thus, showing that how individual empowerment can be transformed to community empowerment. Through the model, the study makes a valuable contribution towards Zimmerman's framework. Specifically, the study clearly shows some of the aspects considered as behavioural empowerment, an outcome or individual empowerment in Zimmerman's framework can also be considered as empowerment process. For example, community participation is both an outcome of individual empowerment and a process through which empowered individuals can empower their communities.

A fifth contribution of my study is on empowerment flows. As discussed in Section 8.6., the findings reveal that when telecentre users act as mediators of effectiveness of telecentres on community empowerment, this takes place in two different flows: 1) empowered users end up empowering the community; 2) those empowered by telecentre users equally empower the community. This is a valuable novel contribution of my study. I have not come across any previous study around community empowerment that has shown any of this. This implies that the benefits of telecentres go beyond those who directly benefit from users. Therefore, in understanding how the telecentres empower their communities, researchers should focus on users, the ones benefiting from users, and also, the ones who benefit from the first group of indirect beneficiaries.

Finally, my study makes a contribution on sustainability of telecentres. One of the main issues that scholars and policy makers around telecentres grapple with is on their sustainability. In simple terms, sustainability is for a project to continue operating in certain state or level. There are five main categories of telecentre sustainability: financial, social, technological, institutional and environmental (Ali & Bailur 2007). The main concern in the literature is that ICT4D projects such as telecentres in developing countries are not sustainable due to, for example, poor infrastructure and failure to design context appropriate technology (Marais 2011). In addition, the major concern revolves around closure of many telecentres in developing countries especially when weaned off and that telecentres are used

by a few people (Etta & Parvyn-Wamahiu 2003; Kumar & Best 2007; Marais 2011). Moreover, telecentres are not meant to rely on donor funding whose main aim is to kick start the projects but should rather be able to sustain themselves (Mphahlele & Maepa 2003). Although my study did not aim at answering this issue, the findings provide insights on telecentre sustainability. My study shows that empowerment of telecentre users is a key not just for empowerment of the community but also for the sustainability of telecentres. Specifically, this is shown on how telecentre users support the telecentres. Thus, in the process of empowerment, users in turn support the telecentres which in the framework is represented by Arrow A. The support that users render to the telecentre is in the form of money that users bring to the telecentre when they access the services. The money is used to repair equipment and pay salaries for staff. This way, telecentre users contribute towards financial sustainability which is about telecentres continuing operating with the money from services (Proenza 2001; Liyanage 2009). Users also support telecentres by attracting people to the telecentre thereby increasing usage base. It is clear from the findings that many users helped in attracting others to the telecentres. This, to the users, did not help in empowering others through critical awareness but also helped in making sure that the telecentre is being used by many hence continued operating. In line with literature on telecentre sustainability, this could be viewed as social sustainability, which is about community acceptance by, for example, participating as it is in the usage of the telecentres in my study (Faroqi et al. 2019). Finally, users support telecentres by providing security by serving as watchmen; taking care of the equipment and not vandalising telecentres themselves. These activities ensure that telecentres continue operating. In turn, it can be argued that users contribute towards technology sustainability which is concerned with ensuring that ICTs exist to be used for a long period without shifts in hardware or software that would negatively affect durability and availability (Ali & Bailur 2007). Therefore, in contrast to literature that argues that telecentres are not sustainable in developing countries, the findings of my study indicate otherwise with a tilt towards the argument that users of telecentres do contribute to their sustainability through financial, social and security provision support they render towards telecentres, although this may be at a small scale. Most importantly, from the findings, we can say that empowerment of telecentre users is important in sustainability of telecentres. Therefore, in discussing and ensuring telecentre sustainability, users have to be considered. Moreover, the role of humans is paramount in sustainability of ICT4D projects (Marais 2011).

8.8. Chapter Conclusion

This chapter aimed at discussing findings on role of empowered telecentre users on empowering rural communities in Malawi. I have discussed the findings on the effectiveness of telecentre users on community empowerment with an aim of answering research questions of the study. During the discussion I have highlighted what my study contributes to or reinforces in literature presented in Chapters Two and Three. The chapter has also highlighted theoretical contributions that my study is making.

From the findings, the following conclusions are made:

- Telecentre users get empowered after using ICT services provided by the telecentre.
- Users empower their communities both at micro (individual) and macro (collective) levels.
- Community empowerment through telecentre empowered users is not direct as it is enabled and hindered by a myriad of factors.
- Users render support towards the telecentre which contributes towards telecentre sustainability.

The study has also offered theoretical implications. In particular,

- It furthers understanding of how telecentres empower their communities by not just focusing on the users but also other indirect beneficiaries. Specifically, it provides novel insights on how individual empowerment of users goes further to the community at micro and macro levels.
- It has reinforced and extended factors that influence community empowerment in ICT4D
- It contributes towards the Social Capital Theory by using it to understand empowerment process.
- It provided novel insights on how empowerment flows in different directions.
- It provides novel model or understanding of how telecentres empower their communities which depicts different core domains to be considered.
- The study makes a contribution on telecentre sustainability by showing that when telecentre users get empowered and empower their communities, they in turn lead to telecentre sustainability.

The next chapter provides conclusions, areas for further research, practical implications and personal reflections.

CHAPTER NINE: CONCLUSION

9.1. Introduction

In this chapter, I provide the summary of the study, present limitations of the study; discuss implications for research and implications for practitioners for better understanding of the effectiveness of telecentres on empowerment in developing countries. I also present my personal reflections from the PhD journey.

9.2. Summary of the Study

The purpose of the study was to investigate how telecentres empower their communities in Malawi by mainly focusing on the role of the telecentre users who themselves are empowered in this process. Specifically, the study was set to investigate the following: how empowered telecentre users empower their communities; and the factors that enable or hinder users in empowering their communities. An interpretive qualitative approach was adopted to collect data from two telecentres in Malawi. The data collection methods that were employed include focus groups, non-participant observation and semi-structured interviews. Data were collected from four groups of people: telecentres users, indirect beneficiaries, telecentres managers and a government official.

The findings indicate that telecentres empower their users by enabling intrapersonal empowerment such as increasing psychological skills and learning and self-development; interactional empowerment such as increasing critical awareness, leadership development and improved status symbol and social interactions; and lead to behavioural empowerment of users. In addition, the forms of empowerment under the each of the three types of individual empowerment vary depending on the type of users, communities and the availability of alternative services within the community.

The findings also indicate that when users are empowered, they lead to community empowerment at micro level i.e. empowering individuals such as friends, families and colleagues; and macro level, which is about doing things that benefit many people at once. At micro level, users contribute to intrapersonal empowerment by improving learning and

development of others, improving psychological skills such as confidence and cognitive frames for others by changing their negative mindsets towards ICTs. Users also lead interactional empowerment of others by leading to career development and employment opportunities; critical awareness by informing others the benefits of telecentres and current affairs in the world; leadership development for others. At macro level, users lead to community organisation by, for example, being involved in community decision making and formulating of organisations; and social empowerment in which telecentre users were improving social services in the community such as efficiency in delivery of examinations and improving health in the communities. The study further finds that when users empower indirect beneficiaries, the latter may empower others thereby extending the empowerment effects of ICTs further. Consequently, these findings provide an answer to research question 1: *how do individuals empowered by telecentres empower communities?*

Moreover, the findings of the study indicate that transition of individual user empowerment to community empowerment is enabled by social cohesion, sense of community, beneficiaries' willingness for help, community participation, users' desire for advancements and community organisations. On the other hand, community empowerment is hindered by limited availability of resources such as users lacking money and laptops and telecentres having inadequate computers; people's attitudes; gender issues; structural factors; and psychological factors such as lack of confidence in ICTs. These findings eventually answer research question 2: *what are the factors that enable these empowered users to empower their communities?*

Furthermore, the study finds that in the process of using telecentres and empowering their communities, users contribute to telecentre's sustainability by providing financial support when they pay for services; attracting others to the telecentres; and by providing security such as taking care of the equipment within and not vandalising telecentres.

Overall, the study points to the significance of going beyond telecentre users to include community when assessing the impact of telecentres in developing countries. Consequently, the study furthers our understanding on effectiveness of telecentres in empowering the

communities, consequently, in reducing digital exclusion. Moreover, the study makes valuable contribution as it suggests a model for understanding the role of telecentre in empowering rural communities in developing countries.

9.3. Study Generalisability and Limitations

The study offers theoretical generalisability. Theoretical generalizability which is also known as analytical generalizability (Yin 2003; Carminati 2018) is about generalizing case study results to "theoretical propositions and not populations or universe" (Yin 2003:10). Based on the findings, for community empowerment to take place, there should be telecentre services, the users, the community and the enabling and hindering factors. These theoretical propositions are strengthened because the study was done at two different cases of telecentres within the same country constringing to cross-case analysis. The cases entailed the same concepts for the theory (Yin 2003; Polit & Beck 2010; Bryman & Bell 2015; Carminati 2018) on understanding the empowerment effects of telecentres on communities through users. The theory is also strengthened by the fact that data collection and analysis reached saturation whereby there was evidence that gathering sufficient and redundant information of the phenomenon (Carminati 2018). However, the limitation is that the findings may not be generalised to all countries that have telecentre. Therefore, the aim of the model developed in this study should not limit the aspects but rather save as a guide in conducting similar research in other contexts. For example, there may be more factors that influence community empowerment in other countries. The researchers should not limit to the ones that have been discussed here but rather focus on the concepts that that form the framework: the telecentre services; empowered users; community; enablers of community empowerment and inhibiting factors for community empowerment.

The study offers valuable insights on the empowerment effects of telecentres on community empowerment using telecentre users as mediators. However, the study cannot be generalised to all developing countries because contextual factors may defer in developing countries. For example, in South Africa, in some contexts, telecentre services are offered for free (Chigona & Licker 2008) which may imply that economic factors may not hinder access to such services; and that ICT penetration levels are relatively higher in South Africa than in Malawi (David & Grobler 2020).

There was some evidence that apart from users, indirect beneficiaries may also help in empowering the community. However, the interviews were carried out for a limited specific period. Therefore, the results did not capture the impact of telecentres over time in a longitudinal manner. Ultimately, the study identifies areas for future research, which are explored in the next section.

9.4. Implications for Research and Future Research Agenda

Firstly, as stated throughout, my study makes a valuable contribution towards understanding the effectiveness of telecentres on community empowerment. This study is and remains a foundation on how telecentres empower their communities through users as mediators. Moreover, much as the study offers theoretical generalizability, my study does not provide contextual generalisability. Therefore, more studies in other countries should be done on how telecentres empower their communities through users. A similar study targeting more telecentres can be done in other developing countries.

Furthermore, community empowerment has mainly been viewed at macro level (such Gigler 2011; 2014). This study has shown that even with community empowerment, which takes place due to the users of the ICT4D projects, can as well be viewed at micro (individual) level, which is that of immediate beneficiaries of users. Therefore, when assessing community empowerment, both micro and macro community levels should be considered.

The study offers a framework that may help in understanding effectiveness of telecentres on rural communities of developing countries using users as mediators. More studies on telecentres as well as other ICT4D projects across African countries and elsewhere where telecentres exist to eliminate digital exclusion should be done using the framework developed in this study as a guide. That way, the framework will be put to use and assessed in developing countries.

As stated above, there was some evidence that some of the indirect beneficiaries that benefit from users also empower their communities although this was not captured in detail, as the study was not longitudinal to capture long-term impacts. The implication of the study is that

in understanding how the telecentres empower their communities, researchers should focus on users, the ones benefiting from users, and the ones who benefit from the first group of indirect beneficiaries. Therefore, future research should focus on understanding how telecentres empower communities beyond immediate beneficiaries of users. Furthermore, the role of indirect beneficiaries in empowering communities should be a topic of future research. Since this was limited evidence as explained in the previous chapters,

The current study showed that gender issues affect the process of empowerment. However, this was only present at one telecentre. Data did not provide insights for possible explanations of the differences. Therefore, the topic about gender and effectiveness of telecentres on community empowerment should appear in the agenda for future research in developing countries such as Malawi.

As far as research on empowerment effects of ICT4D is concerned, my study is the first to discuss empowerment flows. Specifically, my research shows that there are two flows that empowerment effects of telecentres on community takes place i.e. Flow 1, which ends at users beneficiaries; and Flow 2, which goes beyond immediate beneficiaries of which some of these beneficiaries also, empower others in the community. More research should be done to determine empowerment flows that ICT4D projects lead to. Specifically, studies should consider investigating what determines these flows. For example, what type of individuals engage in these flows? How different are they? What determines these flows?

Finally, this study has shown that Social Capital Theory can be used in understanding empowerment process. More studies should consider employing the theory for such purposes.

9.5. Managerial Implications

My study offers implications for practitioner more especially for telecentre operators and managers, and the government responsible for implementing telecentres. Structural factors have been hindering access of telecentres, which eventually affect empowerment process and outcomes. For example, slow internet and lack of alternative power supply distract people from accessing the services. This, in turn, impedes empowerment process. The telecentre

operators should have alternative power supply and upgrade their internet services to maximise telecentre usage. Limited resources such as desks and computers impede the empowerment process. Telecentre managers need to stock enough equipment. It is imperative to address users' challenges in accessing services as these may have negative impact on users' contribution towards sustainability. Similarly, the impact of the telecentre depends on the services that the telecentre provides. If services are limited, there is minimal empowerment effects. Therefore, telecentre operators need to provide a range of services addressing the needs of all groups in the communities as this will help in attracting more users (Vannini et al. 2013). Perhaps telecentres managements should engage in needs assessment every few years to ascertain the services to include in the telecentres.

Linked to the previous point, governments who are responsible for establishing telecentres should be providing services based on the needs of the communities. Thus, even within a country, some services may vary based on the different needs of different communities. In addition, when telecentres are being established, the governments should be providing alternative power supply as start-up capital the same way it happens to ICTs. This will help in reducing power interruption within telecentres.

Discouraging comments hindered community empowerment. This was linked to lack of appreciation of the role of telecentres simply because some people do not know the importance of telecentres. This may be attributed to the fact telecentres were established by the government by adopting top-down approach. Communities were thus unaware of the benefits of the telecentres due to their lack involvement in the design and implementation stages. Therefore, telecentre managers and operators should be engaging in awareness campaigns, which can help in informing community members of the benefits and role of telecentres.

Community organisations, which are formed after using telecentres, have proven to be an enabler of community empowerment based on the type of activities that organisations focus on. For example, these have helped in formulation of other clubs in the communities, and training people in vocational skills. However, this only takes place where organisations exist.

For example, in this study, community organisations only worked at Telecentre B where they existed. Therefore, telecentre managers and operators should include services that encourage creations of organisations such as entrepreneurship programs. Furthermore, telecentres encourage social interactions, which in the end influences users to use the telecentres more often. Managers should provide services that encourage such.

Users' desire for indirect reciprocity has proven to be an enabler for community empowerment. When people help others for future reciprocity, structures must exist to ensure future interaction (Kollock 1999*ibid*). Therefore, where possible, telecentre managers together with community leaders must keep track of the activities that users engage in after the use of the telecentre and how they help that people render to the community for future use and reference.

9.6. Concluding Remarks

For over three decades, telecentres' role on reducing digital exclusion has remained questionable. One group of scholars' stand is that telecentres are effective in reducing digital exclusion by offering social economic benefits to the users (Venkatesh & Sykes 2013; Ngowi et al. 2015; Chigona et al. 2011; Osman & Tanner 2017); while the other group of scholars' stand is that telecentres fail to remove digital exclusion because users tend to be from advantaged groups such as males, youth and the educated (Etta & Parvyn-Wamahiu 2003; Kumar & Best 2007; Kayira 2013; Gomez 2014; Mamba & Isabirye 2015; Faroqi & Siddiquee 2017). However, these scholars have failed to view digital exclusion as a multi-layered phenomenon as they have focused on access divide i.e. on who owns ICTs; and usability divide, which is about the users of ICTs, particularly the skills and frequency of using the ICTs. The debate ignores the empowerment divide, which is about making meaningful usage of ICTs and the changes that take place when one uses ICTs.

Through the findings of this study, I suggest that focusing on how telecentres empower their communities would make meaningful contribution to the debate. Even on empowerment, studies should not be limited to how individuals are empowered by use of telecentres. Instead, studies should also be focusing on how telecentres empower communities at large

with a particular focus on how users of telecentres act as mediators in empowering their communities.

This research has increased our understanding of the effectiveness of telecentres on community empowerment. More importantly, it has increased on the importance of users in empowering the community. Eventually, makes a valuable contribution on understanding effectiveness of telecentres in reducing digital exclusion.

9.7. Personal Reflections

Up until I started my undergraduate studies (August 2005) at Mzuzu University, Malawi, I never knew what a computer is and what it looks like. The only thing close to a computer that I had encountered then was a typewriter owned by my uncle whom I stayed with for a couple of months before joining the University. My lack of prior exposure to computers and other ICTs was because I grew up in rural areas and came from a poor background where access to ICTs is limited. A reality for many more other Malawians who live in rural areas and who cannot afford individual access to ICTs.

At Mzuzu University, I was studying Library and Information Science, a programme that allowed me to use university computers and learn about them. For example, one of the courses in my first year was End User Computing (ICT 1101). In this course, I learnt of the basics of computers, starting from how to switch a computer on and off; how to create a folder; how to type on Word and save a document, etc. The first few days were hard such that at some point I could take a mouse up there before clicking it; and, sometimes, I could forget to save work in a floppy disk I had worked on for hours. Despite all these difficulties, I felt privileged to learn how to use computers.

When I was in third year of my undergraduate studies, I was expected to undertake a research project. The Department then gave us (my class) a list of topics to choose from. I wanted something easy. Therefore, initially, I chose a topic that would allow me collect data within the campus, Mzuzu University Library. Before I made up my mind, I saw another topic to do with telecentres. Then, I had no idea what these facilities were. I remember a senior friend explaining to me that these were facilities that offered public access to ICT services in rural

communities, advised me to go for that particular topic because telecentres had just been introduced in the country, and posed a great opportunity for me to work in ICT4D sector. Due to this reason, coupled with the fact that I knew how important such facilities would be in rural areas as I came from such particular communities, I went for that topic. This is how my interest in telecentres started. With the little knowledge I had on research, I embarked on the project to explore the role of telecentres in Malawi. Then, there were only two telecentres in the country. My passion for telecentres grew further when I was doing my masters studies at University of the Western Cape, South Africa. I thought of doing another study around this area. During this time, I focused on factors that influence adoption of telecentres because only a few people were using the facilities in Malawi (based on my previous research and some other studies).

The idea of doing my PhD studies came before I completed my master's studies program (2014). However, I still wanted to specialise in telecentres. This time, I wanted to assess the impact of telecentres on development in Malawi. My argument was that there was no study done on this topic in Malawi. When I started my PhD studies in September 2017, a lot of things changed in my proposal. For example, I learnt that for a PhD research, one needs to focus on theoretical gap in the literature. That a PhD needs to do something new that is lacking in the literature. This was going beyond contextual gap. Eventually, I learned that we lacked knowledge on how users who are empowered or benefit from telecentres empower the community. We did not know how essential users are in turn empowering the communities, and the factors that influence them in the process if at all they do really empower the community. I also learnt that we lacked a framework that can guide such studies. Therefore, I decided to investigate how telecentres empower rural communities using users as mediators. By taking this angle, I have learnt that telecentres reach many people through users. That the benefits of telecentres go beyond users. Therefore, even when only a few users benefit from the services, telecentres should not be judged failures in benefiting the communities because the benefits go beyond users.

The PhD journey itself has been a learning process for me. I have learnt how to justify a problem properly for research and gap. I have learnt that research is about filling in gaps in existing literature. I hope this knowledge will help me in my work as an academic as I continue conducting research and supervising students.

I have systematically read and analysed numerous research articles on relevant literature to the topic for me to gain a deep understanding of the phenomenon under study. All the information I have read are relevant in one way or the other. The theories chosen for my study are related to empowerment and social capital. The theories have contributed to in-depth analysis and understanding of the topic; and have served as a foundation to the topic under study.

Research methods courses offered in the first year of the PhD programme were and will always be so helpful to me. They gave me an opportunity to have deep understanding of the differences between quantitative and qualitative research. As someone who is not that good at statistics, I have enjoyed doing qualitative research through this study.

The most exciting part of my PhD studies was when I got my papers accepted for conference presentation. Presenting at conferences did not just allow me to get exposure but also get feedback on how to improve my work, network with people from various countries and institutions in ICT4D and to socialise. One other thing I liked about presenting at conferences was that it allowed me meet some of the people I consider gurus in ICT4D. I think there is nothing sweeter than finally meeting people whose papers one has been reading. For example, I was happy to finally meet Richard Heeks (in Manchester 2018 and Tanzania 2019) and Dorothy Kleine (in Manchester 2018). I have read many papers by these people hence the excitement for meeting them face to face. The other exciting part of my PhD studies was when I was accepted for one prestigious European Conference on Information Systems (ECIS) (2020) Doctoral Consortium, which was to take place in Marrakech, Morocco, in June 2020. Being one of the 20 doctoral students who were selected to attend the consortium was no mean achievement. I felt proud of myself. The unfortunate part was that it did not take place due to Covid-19. I was still grateful to get feedback on my work from gurus like Prof. Ojelanki Ngwenyama.

The most time consuming and demanding task during my PhD journey was transcribing the interviews. I wanted to do the transcription all alone because this helped me to familiarise myself with the data and start coming up with first order concepts during the process. However, transcribing more than 40 interviews was not an easy task. It was also challenging

choosing which data to use. Eventually, coming up with a data structure was essential, gave me confidence and made my data analysis easy.

During the PhD journey, I have found myself exploring and discussing with my supervisors for the perfection of the thesis. There have been times I have argued for a point because I thought it was a good one, yet my supervisors thought otherwise and, later on, I realised that my supervisors were right. There have been moments when sometimes I have felt overwhelmed by the comments from my supervisors but when I read those two or more times, I felt they were just normal and true reflection of my work. What a journey!

Working with my supervisors has taught me a lot. They have been more than supervisors to me. They allowed me to voice out. I have learnt that being a supervisor does not mean that you just impose things on a student but allow flexibility so that the students' ideas are incorporated. This relationship has helped me build mentor/mentee professional relationship with them. I am sure that as an academic myself, I will apply some of these as I will be supervising my own students.

Reflecting on my thesis, I have realised that I am reflecting on my journey into technology and information management. A journey into ICT4D. A journey I consider having just started with this PhD. I hope what I have written in the thesis will not be just for getting a paper but that I will use some of these for the betterment of my country. Among others, I plan to work with Malawi Government as it strives to improve access to ICTs through telecentres. I plan to do more research on telecentres. I aspire to be called 'Mother of Telecentres' in Malawi. On the next step in the academia? Well, I dream to become an Associate Professor in the next three years!

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Appendix A: Interview Guide for Users

Telecentre users and individual empowerment (users' background)

1. Tell me about yourself: your age, gender, education, type of employment, who you live with, whom you depend on, your dependents etc.
2. Please, tell me more about when your interest in using the telecentre began.
3. How has the telecentre helped you?
4. Please, tell me more about how the use of the telecentre has helped you in living the life that you want?
5. Do you think you have given back to the telecentre? If yes, in what way have you done so or helped the telecentre?

Telecentre users and community

6. How has the use of telecentre helped you in influencing things in other people's live e.g. friends as well as the community?
7. What are some of the things that you have done to the community after using the telecentre?
8. a). In your opinion, what are the problems that the community faced before establishment of the telecentre?
   b. In your opinion, has your use of telecentres helped you take part in solving these community problems? If yes, how have you helped in solving the problems?
9. Do you think your leadership roles has changed in the communities with reference to the use of the telecentre? If yes, tell me more about it.
10. Do you think your community participation has improved after using the telecentre? If yes, what do you think is the most significant change in your participation aiming at improving things in your community?

What influences community empowerment

11. What made you think of using what you gained by using the telecentre to have an impact of your community?
12. In your opinion, what do you think influences you to contribute towards community empowerment?
13. In your opinion, how do socio ties influence community empowerment?
14. In your opinion, how do you think the community helps or supports you in benefiting from the telecentre?
15. Do you think there are any barriers from the community that affect you in empowering the community? If yes, tell me more about them.
16. What is your biggest struggle that you have when empowering communities?
17. What keeps you on track?

Appendix B: Interview Guide with Telecentre Managers

1. Tell me more about yourself e.g. your qualification and where you worked before this.
2. In your opinion, how do telecentre users support the telecentre?
3. In your opinion, how has the telecentre empowered users?
4. In your opinion, how does the community support, help or influence the telecentres?
5. In your opinion, how does the community benefit from the telecentre? i.e, how does the telecentre support the community?
6. In your opinion, how do the users empowered by telecentre empower their communities?
7. In your opinion, how does the community support or influence the users?
8. What do you think influences the users to empower the community?
9. Are there any barriers to empowering the community? If yes, please tell me more about it.

Appendix C: Focus Group Guide for Users

1. How did you use the Telecentre?
2. What do you think is the role of the telecentre in the community?
3. How did you benefit from the telecentre?
4. How do you see your community? E.g. is it the immediate circle and or beyond?
5. How does the community benefit?
6. How do you give back to the community?
7. How does the community influence you in using the telecentre?

Appendix D: Interview schedule for indirect beneficiaries

1. What do you think is the role of the telecentre in your community?
2. In your opinion, how do you benefit from the telecentre?
3. In your opinion, through whom do you personally benefit from the telecentre? E.g. is it family and friends?
4. In your opinion, what is the role of social ties in benefiting from the telecentre?
5. How do you think the telecentre has benefited the community at large? For example, what changes have taken place in the community through telecentre?

Appendix E: Consent Form

Informed Consent Form

Thank you so much for agreeing to take part in this study which will be carried out in 2019. The study is being conducted by Sellina Khumbo Kapondera, a PhD student focusing on Technology and Information Management in the School of Management at Royal Holloway University of London. Sellina is being supervised by Prof. Niki Panteli and Dr. Roberta Bernadi.

This consent form outlines the purpose of Sellina's study, data collection methods and your rights as participants in this study.

The purpose of Sellina's study is to find out the role of telecentres in empowering rural communities. Particularly, she is interested in investigating how users empowered by telecentres may empower rural communities.

Sellina is carrying out the study by collecting data through semi-structured in-depth interviews and observations.

As participants, you are encouraged to ask questions and clarifications if need be. You are also free to contact me on my phone numbers and or email addresses given below.

I will record our conversations with your permission. This will help me to correctly capture our discussions. I will use the recorded discussions solely for the purpose of this study. if you do not feel comfortable to be recorded in the course of our discussions, you are free to say that so that I turn off the recorder.

Your participation is voluntary and you can withdraw from participating without being asked to give reasons for your withdrawal.

I will use the data collected through this study for the purpose of producing my research report and the data may also be used for academic writings such as journal articles. When using the data from you, I will keep your names and other details for identifying you anonymous. In addition, the transcripts as well as the recorded files will be protected with passwords to allow only me access them.

By signing this consent form, I certify that I _____ agree to the terms of this agreement.

Signature _____ Date _____

Sellina Khumbo Kapondera
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Appendix F: Observation Guide

Item observed	**Details**
How users interact with their families and friends after using the telecentre.	
The type of conversations they have with their families, friends, colleagues.	
The type of things they do in their communities.	
The type of people they interact with. For example, based on age, gender and education. Do they only interact with people in their categories?	

Appendix G: Royal Holloway Ethics Self-Assessment Form

Ethics Self Assessment

Your answers indicate that you do not need ethical approval. If your research includes use of animals as research subjects, you will have been emailed separate guidance which must be followed before you begin your research. Should the circumstances of your research alter in any way please revisit this process to validate your project.

Applicant details

Declaration

By clicking the 'submit form' button, I declare that the questions above have been answered truthfully and to the best of my knowledge and belief, and that I take full responsibility for these responses. I undertake to observe ethical principles throughout the research project and to report any changes that affect the ethics of the project to the University Research Ethics Committee for review.

Project type:	Royal Holloway postgraduate research project/grant
Name:	Kapondera, Sellina (2017)
Email:	PDTM013@live.rhul.ac.uk
Academic supervisor:	Prof. Niki Panteli
Department:	Management
Title of research project or grant:	The Role of Telecentres in Empowering Rural Communities in Malawi
Email address of Academic Supervisor:	niki.panteli@rhul.ac.uk
Funding Body Category:	No external funder
Funding Body:	

Information about the Research Project

Will the research project involve the use of human participants or human tissue (with or without their knowledge or consent at the time)?, No

Are the results of the research project likely to expose any person or community to physical or psychological harm?, No

Will the research project involve the use of animals as research subjects?, No

Will you have access to personal information that allows you to identify individuals or company confidential information (that is not covered by confidentiality terms within an agreement or by a separate confidentiality agreement)?, No

Does the conduct of the research project present a significant risk to the environment or society?, No

Are there any other ethical issues raised by this research project that in the opinion of the PI require further ethical review?, No

Does the PI believe that the results of this research could reasonably lead to legal action or negative press coverage, for which the PI would require University support?, No

Certificate produced for user ID PDTM013

Certificate dated 1/29/2019 6:25:22 PM

Appendix H: Timetable for completion of thesis

Activity	Period	Specific Period for undertaking the activity	Academic Year
Data collection	5 to 6 months	Mid-March to end August 2019	Year Two
Data analysis	5 months	September 2019 to January 2020	Second year to early Third year
Writing up	8 months	February to September 2020	Third year
Editing	3 months	October to December 2020	Early fourth year
Thesis submission	-	December 2020	Early fourth year

Appendix I: An extract from Data Structure

"He employ us. I should just say he employs us. Yeah so we find things to do after working we get paid and that solves the problems we have.. How I benefited? Because he gives me things to do through which I find money to use in solving some of the problems I have" (TAIDBN1). *"When he employed me, he gave me a job which gives me things to do and I earn something at the end of the month to take care of things in my life," (TIDBN1).*	Users opening a cybercafé which employs people	Employment opportunities and improved work for others	**Empowered users influencing community empowerment at micro (individual) level**
"It helps [having knowledge in ICT] because at work we do process books and enter the records in the computer. I do that easily [processing records] but I used to struggle to keep the records. Now I am able to do that easily as compared to how I was previously" (TAIDBN14). *"Yes. I will give an example; we do have records that we write on daily basis. When we write the records, we enter into the computer so that we can in case they [the handwritten notes] may get lost. If they get lost, we just search on the computer" (TAIDB12).* *"The books [that we produce through telecentres users' help] are so useful because when she brings us the books, everyone has theirs and we know how much we have saved" (TAIDBN9).*	Improved work efficiency for indirect beneficiaries		
"Ehee. So, after acquiring computer skills from the telecentre, I have been able to teach some other people who could not afford paying due to limited financial resources" (TAUN13). *"Sometimes there are people who do not have money to access services here [at the telecentre] so we teach them what we have learnt from here. This helps them to have knowledge of operating [computers]" (TAUN13).* *"I have benefited because I have known a lot through the telecentre especially when operating phone even computer because we have computers in our office. I was ignorant on that part but I am now able to do anything whether it is printing or sending something and the like. I would say that" (TAIDBN14).* *"Like when we go to the computer lab, even if the teachers have not taught us*	Teaching computers which eventually increases ICT skills	Learning and development for others	

some other parts, I do help my fellow students, right? Because I already know some of the things through the telecentre. Sometimes the teachers at school they do not go in detail. We find ourselves helping one another with fellow students that this is how we do things" (TAUN1). *"Yeah. There is a friend and colleague whom I have helped in relation to his work because he works in the reprographic section [of our library]. That is not my job but there was a time I was working in the library so I helped him that this is how we operate these ICTs, say printing this is how we do it" (TAUN10).* *"….I remember there was a certain guy who called me aah from Mponera he said we met at telecentre, we met at telecentre and this time I called at telecentre I said I am looking for somebody who knows much more about aah how to use router and I heard that you bought one, how do you use it? I said WiFi, he said yes WiFi, so I said no, this is how we are doing it" (TAUN17).* *"I would like to indicate that I wanted to have special skills. So, when I started learning especially computers, and when I had acquired computer skills I wanted to help others such as those who are unable to come and use the telecentre due to limited time as they focus on their work. So, I assisted some other people such as the telecentre manager's wife whom I was able to teach computers because she does not use the telecentre due to the fact that she is busy with household chore. I assisted her. I was so happy and proud of myself by helping others after obtaining the skills here [at the telecentre" (TAUN5).* *"Yeah. Teaching, I have taught many people. Yeah, from January 2018, that was last year. I have been teaching different people how to use a computer and in different packages" (TAUN11).* *"Also, the school issue. There are students, because there are some students, of course at the college but they do not know how to use or operate computers. So, those students do come to me that I should assist them in one way or the other" (TAUN11).* *"I teach about the telecentre because some do not know. So, I do tell them that this is what happens at the telecentre. We*			

learn computer, typing and many more" (TAUN7). *"She [my daughter] taught me how to operate it [computer]. Yes, she was doing here [home] using the laptop. And, thereafter I went there [telecentre]. The friends there assisted me in many ways at the telecentre yes" (TAIDBN13).* *"I personally what I can say is that, for me, I found a friend who learnt [computers] here at the telecentre. So, through this friend of mine, I have been able to know from him the things I did not know especially computers. Yes, he helped me acquire knowledge in computers" (TAIDBN12).* *"I have benefited because I have known a lot through the telecentre especially when operating phone even computer because we have computers in our office. I was ignorant on that part but I am now able to do anything whether it is printing or sending something and the like. I would say that" (TAIDBN14).* *"Knowing how to use computers. Like Internet" (TAIDBN2).* *"Aah, for me, because sometimes she [TAUN2] could leave her computer, eeh do not touch it, you will [destroy it]. Eeh because you do not know to operate it. Then she taught me and I know that this is how I should do this, here this is what I will do, here I should write a name. [laughs]. I was curious about what she was doing, I could see her typing, writing things and sending them I was like aah I can also do this. That is when I said how can I write my name? She told me do this and that then I realised I was able to do that" (TAIDBN4).* *"Eeh especially on learning computer. It has been a while since I last came here but they encouraging me that this is how we operate [computers]" (TAIDBN7).* *"What I learnt. Like printing examinations. Maybe there is some piece work…" (TAIDBN3).*			
"Yes, we do share information especially school related information" (TAUN12). *"When I came here to learn about computers. I came across information on TEVET programs. So, I was able to share*	Sharing knowledge with others		

that with some friends. So, people could come to check and apply" (TAUN6). *"I benefited a lot because of studying [in the telecentre]. I performed well because I was using the telecentre [for my studies]" (TAIDBN7).* *"It helped us a lot because even when I sat for examinations, I passed. There was some improvement in terms of performance in examinations" (TAIDBN8).* *"Eeh mmh, because some people come here to borrow books. When they borrow those books I find an opportunity to use them. I do not come to the library but sometimes one borrows a book that is also useful to me. So, it helps me because I am currently preparing for examinations" (TAIDBN12).*	Indirect beneficiaries' Improved school performance		
"Because we have different perceptions of Internet because these things came late in Malawi. Some are born before computers whiles others are born after computers…like our parents. Even some educated ones but the elderly. They do not know about computers…Now, because we have acquired computer skills, they know that we are resourceful and ask us to do things for them even those who have diplomas or degrees. So, this changes their mind-sets. That aah we used to say that these computers deletes names at the DC's offices, so this is the computer? This is how it is used? Their mind-sets have changed" (TAUN1).	Changing people's mind-sets towards computers	Cognitive frame	
"I tell people that there is a library in the telecentre where you can go to study. So, people do come to study here" (TAUN12). *"We would meet people with interest [in ICTs] and we would explain to them and would be come here. They would simply come and ask about some things like 'how do photocopiers work? How can I find one? I would help enlighten them so they can achieve what they want" (TAUN15).* *"[Because] as I said, I am married and*	Increased awareness of the existence of telecentre and the services	Increasing critical awareness	

my wife could not know how to use the telecentre but it was me whom I sent my wife to be trained by telecentre. And has been coming here to learn, a lot coz as I [not clear] the goodness of the facility that we have at the telecentre. So, I do empower my community members and my family members as well. That telecentre can be utilised well" (TAUN16). *"So, I can say the part that I took from this place is to bring awareness to other people because aah other people they do not know that there is a telecentre; and sometimes because it is located at a village" (TAUN17).* *"I would say that when we help them and also tell them that we learn this from the telecentre, that is when their interest develops and they may start using the telecentre" (TAUN16).* *"When it comes to interacting with my fellow youths. I do tell them that my friends, if you need a good place for reading/studies then it is the telecentre. So, when those people came here for the first time they found it to be a good place" (TAUN10).* *"For me, the most important thing I can say I have done is that I have empowered people to start computer lessons after they had seen me" (TAUN1"*			
"She [my daughter] taught me how to operate it [computer]. Yes she was doing here using the laptop. And thereafter I went there …at the telecentre yes. After some time I could go there and told them my daughter taught me this, this and that. They are like ok you are in the right channel. We operate like this and we do this and I said it is good" (TAIDBN13). *"I had a girlfriend, before I married her I told her 'go to school first, to seat for form 4 examinations again because you did not do well at your first attempt you have to go back to school…Now, she really went back to school. She wrote her form 4 examinations and for all her studies I told her that the best place for studies was the telecentre……Every morning by 8AM she coming here to study. She did well in her studies. I married her and now she will be going for teaching course because of the knowledge she gained here…So, I have*	Increased awareness of benefits of telecentres		

impressed her and empowered her to further her studies" (TAUN10). *"Helping to change other people's lives so that they should also be aware of the technologies in the telecentre and their benefits" (TAUN6).* *"I use the library and able to tell my friends about the benefits of telecentre and they also start coming here to study in the library" (TAUN12).* *"I have a cousin who sat for form 4 examinations last year. He is now at Lilongwe Technical College also studying towards [Diploma] in IT. He was just staying not even studying and told her to be coming together with me to study and use library in studying. From that time he started using the telecentre and did well in his examinations" (TAUN14).* *"When I learnt in the telecentre I saw its benefits and told some people to be coming to the telecentre to learn computer" (TAUN9).* *"I enlightened people in my community about the coming of new gensets, the ones that you can hear making noise on that side. [I said] we should first of all investigate them before we start using them. All this is possible because we could search [advantages] and disadvantage of gensets on the Internet [in the telecentre]" (TUN16).* *"One can find information on different topics on the internet including current affairs. When I come here [telecentre] and see something online I tell people in my village that I was at the telecentre and read about this online there will be such and such a thing on this particular day. So, those people get to know of something through my using internet in the telecentre" (TAUN14).*	Increased awareness of issues in the community		

"[I benefit from] several of them. Some are my friends. The other one is my relative" (TAIDBN2). *"Most of the people I do help are my friends" (TAUN10).* *"[I benefit from my] daughter"(TAIDBN13)* *"[I benefit from] my friends" (TAIDBN12)* *"Some of them [I benefit from] are friends. The likes of [TAUN17], the one you met. He was my friend who later employed because I know the work" (TAIDBN1).* *"The one I am benefiting from is my friend" (TAIDBN2).* *"I help different people. Some are the people I relate so well with. Some are my relative and some are my parent's friends" (TAUN18).* *"[I benefit from] friends" (TAIDBN8).* *"[I benefit from] colleague" (TAIDBN14).* *"[I benefit from] Colleague and friend" (TAIDBN12).* *"For example, there is this certain guy, he came here. I do not know whether he was shy to ask some people, he did not know anyone then he came to me and said I went to this telecentre I was looking for, actually I have this phone it was sent from South Africa but I do not know how to use it…I went there [at telecentre] but I was shy to ask. But because I have grown up in this place, do you understand? It is like I have, like, I have been here so he said, I know you and because I know you I am not afraid to ask. I am not even shy to ask you because you even learned a lot from that place. Can you teach me how to use WhatsApp? Can you teach me this and that?" (TAUN17).* *"The people that I help or empower are the people that I am friends with. The*	Users helping people they are connected to (e.g. family and friends)	Social cohesion	**Enablers of community empowerment**

people that I usually help are the ones that are connected to me or friends with me" (TAUN5). *"Aah I would say that, mostly, I help those connected to me though sometimes I also help those not connected" (TAUN1).* *"The ones I have helped are the ones I know and connected to (TAUN2).*			
"I would like to mention that interaction. Interaction with people helps people to easily approach you and ask for helm. Interacting with them, being friendly" (TAUN10). *"When you are not friendly to people, then it is difficult for people to reach out to you. The more you are friendly, the easier the people will come to y; and the more you are giving those people information. I fell that is it" (TAUN10).* *"[being friendly] helps because people are not afraid of approaching you. But when one is rude people are scared of approaching you, do not know how to approach you but when friendly, people are flexible to approach and ask you things…." (TAUN13).*	Friendliness of users leading to their approachability		
"It is just that we do not know but I believe that sharing experience helps to do something quickly as compared to only have one knowledgeable person. It makes life easier because you are sharing knowledge, you do something together and you do it quickly as compared to have only you do it on your own" (TAUN1).	Helping others in the community would help in doing work quickly and easily	Sense of community	
"It is all about love because if I wasn't loving I would not care about empowering people. I would be saying each to their own" (TAUN10). *"Aah this is how I was born, I love people. All I want is to see people developing. They should no longer be ignorant. The community should be famous" (TAUN15).*	Users helping others out of love		
"All I want is that everyone should be knowledgeable" (TAUN6). *"I sympathise with people especially considering the way I was. Now, my life has changed for the better. So, I would also want to share the skills I have with others*	Helping others so that the whole community should be knowledgeable		

for them to be knowledgeable as well. That is why I usually tell people of the goodness of the things [such as telecentre]" (TAUN15). *"What makes me empower people is that I want everyone to be knowledgeable. I think it is a feeling that everyone should be knowledgeable so that they should not be doing things ignorantly" (TAUN2).* *"What made me [start empowering the community] is that because I used to admire my friends whenever they came here to learn. I admired them. So, what I want is that I I should teach others so that they can also have ICT skills. They should also be knowledgeable and not lag behind technologically" (TAUN5).* *"For the community to develop, it is important for the person to be knowledgeable. However, one person cannot develop a community. It is important that other community members be knowledgeable so that we help one another" (TAUN6).* *"[I help people] so that at least in one way or the other, they should be knowledgeable" (TAUN11)* *"The benefits to be widespread. I should also be able to share with fellow like, community" (TAUN11)* *"Yes. They should know the importance of using the telecentre" (TAUN6).* *"As I have said, the moment I came back from school, I started, it is when I realised, I started doing, I started learning here, then I was trained here, then I started making money from here. Then I said no this should not be for me only, you know there are so other guys also, some other people who even went to school. Even some of them they did not have a chance of going to school like I had" (TAUN17).* *"What makes me share what I learn from here is that other people to also start using the telecentre so that they benefit because I see how I used to be before using it and want others to benefit also"(TAUN14).* *""Whenever you learn about something, it is not good to keep it to yourself. That way*	The feeling that benefits of the telecentre should be wide spread		

it means that thing is useless. Whatever you learn today, let others learn from you so that the community at large benefits from what only one person learnt….." (TAUN16 (TBUN16). *"The other reason is that if I learn and do not share that with others, if I die or relocate to somewhere, the community would suffer. But when I share the knowledge with others, those people will use it. Including my children in their future, they will have that knowledge" (TAUN16).* *"It is because a person does not stay in one place forever. You change places. For example, I have already said that I am a student. So, sometimes I do go to school for 2 terms, six months. Therefore, those people I do write letters for in the community, they have no one to do for them when I am away. So, I think it is important that I should teach others so that whenever I am not around, those people should be able to perform the same tasks I was performing whilst I was here" (TAUN11).* *"So, it may happen that I learnt about computers and I am able to use Internet but someone who may be my friend or a relative; and I am here using Internet here [telecentre]. Yet they want to use Internet at home. It will require me go home from here yet I am here doing other important things, I should go home do different things [help them]. Yet if I had taught that person they would do the things on their own in my absence" (TAUN1).* *"What makes me continue helping people is that I want these people to be knowledgeable in using technology because as I have already said that if you know something and something and you are not around, something urgent happens yet you are not around it means no one would be able to handle that because you did not teach others" (TAUN13).*	The feeling that if only one person is knowledgeable, the community would suffer		
"I do help people who approach me. I cannot say everyone but those who approach me" (TAUN2). *"I also help people who are not my friends as long as they come to me to ask for help… When they ask me, I explain to them how that works" (TAUN10).* *"I do help anyone in my class. These are*	Users empowering people who ask for help	Willingness of beneficiaries	

those who ask me where I got information from. So I do tell them that I got it from the telecentre. so, they also have interest in coming to the telecentre to study" (TAUN12). *"Like me personally, I did not know Facebook and I used to ask [….TAUN10] that if I want to use Facebook how do I do it? What about WhatsApp? And Internet? So he could say ooh this is how we do it. And teaching me has helped a lot of people because I have also taught other people" (TAIDBN14).* *"I was curious about what she was doing, I could see her typing, writing things and sending them I was like aah I can also do this. That is when I said how can I write my name? She told me do this and that then I realised I was able to do that. Though I have not reached where I wanted but it is helping me a lot because I did not know anything. I am even able to play games [on computer]" (TAIDBN4).*			
"Sometimes [the people I help] are the people who are interested in learning about something. Even if I do not know them, as long as they want to learn I help them" (TAUN5).	Users helping those who are interested in learning		
"There are different applications on the computer. There are things that I have been taught and others that I have not been taught. As long as I am teaching, I am able to learn because you say they want to learn about this yet I do not know about this. So, what should I do? So, that forces you to learn also" (TAUN2). *"When people come to me they do come with a lot of information because they know they will be helped. With that, I feel that they are also helping me to improve my knowledge and that I am using my knowledge" (TAUN10).* *"It is a very big opportunity to teach someone, when you learn something and just keep it to yourself. It is not on. You need to share with others that this is how things work and when you do this you benefit a lot" (TAIDBN4).*	Helping others for personal growth	User's personal benefits	
"I have already mentioned that I have not finished school. I am finishing my studies any time soon so I will expose myself to	Empowering others with an aim of exposing oneself for prospects		

other people. So that some other time when I want to do something people will say he is already there. So, I will not have problems" (TAUN18). *"As I already said that it is important to me because I know that when I have come up with something, those people will help me in return if they are human enough" (TAUN18).* *"Because when you love someone [and help them] they may be able to do the same thing [help you] when you equally experience a problem in the near future" (TAUN9).*	Helping others with the hope of receiving same favour in future when they experience a problem		
"I would say that it [telecentre] helped open our eyes and know that this is how we can help others especially with what we were doing here, we could meet different people. So, that removed our fears. So, like I participated in getting back our land from the ministry of agriculture" (TAUN16).	Users taking parting part in activities that benefit the community	Community participation	

Appendix J: Cross-Case Analysis for Telecentre and Telecentre B

Telecentre's influence on Empowering Users							
Type of Individual Empowerment	**Intrapersonal Empowerment**		**Interactional Empowerment**				***Behavioural Empowerment***
Form of Empowerment	***Psychological Skills***	***Learning and Self-Development Skills***	***Leadership Development***	***Social Status and Interactions***	***Career Development***	***Critical Awareness***	***Community participation***
Telecentre A		Learning how to use computers and other ICTs Computer tutorials acting as basics at tertiary level Increased knowledge Good performance in school	Using telecentres increased leadership roles Increased leadership skills	Telecentres helping increase status symbol	Use of telecentre helping get a job (employment opportunities) Use of telecentre helping in shaping career Use of the telecentre helping in prospects	Increasing awareness of issues	Taking part in changing things in community
Telecentre B	Increased confidence	Gaining ICT skills Increased finances	New leadership roles	Increased status symbol Increased social ties	Telecentres helping people get job Use of the telecentre helping in prospects		Taking part in social political activities Signing petitions
Empowered Users Influencing Community Empowerment at Micro Level (Individual Empowerment of Community Members)							
Type of Individual Empowerment	**Intrapersonal Empowerment for Others**		**Interactional Empowerment for Others**				

Form of Empowerment	***Psychological Skills for Community Members***	***Learning and Development Skills for Others***	***Increased cognitive frame***	***Leadership Development of Others***	***Critical Awareness***	***Career Development for Others***	
Telecentre A		Teaching computers which eventually increases ICT skills Sharing knowledge with others Indirect beneficiaries' Improved school performance	Changing mindsets		Increasing awareness of the telecentre, its services and of the benefits Increasing awareness of issues	Users opening a cybercafé which employs people Improved work efficiency for indirect beneficiaries	
Telecentre B	users improving confidence of indirect beneficiaries	Teaching others ICTs Paying school fees Teaching/gaining vocational skills Gaining business management skills Capital for business Sharing/gaining knowledge		indirect beneficiaries gained leadership roles	Increasing awareness of the telecentre services and benefits Increasing awareness of issues	Helping others get jobs Indirect beneficiaries employing others	
Empowered Users Influencing Community Empowerment at Macro (Collective) Level							
	Organisational Empowerment	***Social Empowerment***					
Telecentre A	Telecentres users contributing	Efficiency in administering examinations					

	towards decisions in the community						
Telecentre B	Guiding in formulation of clubs Formulation of organisations and clubs	Efficiency in examinations Improvement in health					
Enablers of Community Empowerment							
	Sense of community	***Social cohesion***	***Community participation***	***Community organisation***	***Willingness of beneficiaries***	***Users' desire for personal advancements***	
Telecentre A	Helping others in the community would help in doing work quickly and easily Everyone should be knowledgeable Helping others for telecentre benefits to be widespread The feeling that if only one person is knowledgeable, the community would suffer	Helping people they are connected to Helping people because of friendliness			Users empowering people who ask for help Users helping those who are interested in learning	Helping others for personal growth Empowering others with an aim of exposing oneself for prospects. Reciprocity	

	Helping people out of love						
Telecentre B	Everyone to be knowledgeable The feeling that the community can develop by its members Helping others for the benefits to be widespread Hope for a better community and country Love for people and God	Helping people connected to	Users taking parting part in activities that benefit the community	Empowering others through organisations Empowering others through clubs e.g. reading clubs	Users empowering those who are interested in learning Users empowering people who ask for help	Reciprocity Helping others for personal growth Helping others leading to personal happiness	
Inhibiting Factors to Community Empowerment							
	Limited Availability of Resources	***Psychological Barrier***	***People's attitudes***	***Structural Factors***	***Gender Issues***		
Telecentre A	Lack of money for buying resources hinders reaching out to many Lack of laptops hinders reaching out to many	Lack of courage to ask for help	Discouraging comments by community members Lack of appreciation of the role of telecentres by community members	Unreliable power supply hindering people in accessing services Poor internet connectivity hindering users in accessing services			

	Low educational levels of community members Lack of English knowledge is a barrier to community empowerment		Lack of interest among community members				
Telecentre B	Inadequate equipment and services in the telecentre Limited finances for accessing services Low educational levels of community members	User's lack of confidence	People expecting handouts Discouraging comments Hatred Looking down upon others Negative perception of ICTs	Unreliable power supply Unreliable internet connectivity Poor customer care	Men not taking heed of women's help		
User's Support Towards Telecentres							
	Telecentre sustainability	**Security provision**					
Telecentre A	Financial support when accessing telecentre services Attracting users to the telecentre	Not vandalising the telecentre Serving as watchmen for the equipment Taking care of and not stealing the equipment					

Telecentre B	Financial assistance through services Attracting users to the telecentre	Taking care of equipment					