Information and Communication Technologies Impact on Social Capital
A case study in northern Uganda
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ABSTRACT

The distance between the third world and the western countries is continuing to increase. The continent of Africa is home to many of the absolute poorest nations on this planet, making development even more difficult in the region. The slow development is the result of many factors, after the colonial times, the continent was left with civic wars and violence while trying to establish stable governments. In Uganda, it took several decades of bloody massacres and fights before the country reach relative stability.

Other factors, leaving war to the side, are now affecting the development of the nation. High technological illiteracy outside the central region is prohibiting the Ugandan citizens from accessing information and the global market, leaving them with the opposite to a competitive advantage. The government has recognized the importance of Information and Communication Technology (ICT) for the country’s development, and heavy investment programs and acts has been carried out. The infrastructure is there, but the knowledge of how to utilize it is not. To solve this problem, private actors and non-government organizations has taken on the responsibility of educating the population in technological usage.

A research gap was found of how ICT impacts the youth in agrarian areas of developing countries. The purpose of this thesis was therefore to explore the impact access and knowledge of ICT has on Social Capital in rural villages in Northern Uganda. The research will also address how these two components could affect the economic performance in the area. To fulfil the purpose, a qualitative study will be carried out with in-depth interviews held at the learning sites of Whitaker Peace & Development Imitative in northern Uganda. Through the research process, the interviews will be continuously analysed using grounded theory.

The results confirmed that ICT has a positive relationship to Social Capital, enabling the community to grow at a faster pace than it otherwise would. ICT also increase competitiveness among the youth and creates job opportunities as well as access to external funding and grants. Furthermore, a thorough analysis of the results concluded in the development of a model for how ICT access among the youth can impact Social Capital and lead to sustainable community development.

Keywords: Information and Communication Technology, ICT, Social Capital, Sustainable Development, Economic Performance, Youth, Developing Economy, Uganda, Ericsson, WPDI
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DEFINITIONS

CSI: Corporate Social Investment, entails projects that are external to normal business activities, activities that are not directly for the purpose of increase company profit.

G7: Group of Seven, a forum for the seven largest developed economies in the world. The seven nations are: United States of America, United Kingdom, Canada, France, Japan, Germany and Italy.

ICT: ICT is the umbrella term used for all Information and Communication Technologies, including broadband, smartphones, laptops, and land-line telephones among other technologies.

MNC: Multinational Corporation is a company with facilities or other assets in at least one country outside of the domestic market.

MTN: Mobile Technology Networks, a multinational mobile phone and internets service provider based in South Africa, used all over Africa.

OECD: Organisation for Economic Co-operation and Development, an intergovernmental economic organisation with 36-member nations, founded to stimulate economic progress and world trade.

WPDI: Whitaker Peace and Development Initiative. A non-profit organization founded by artist and social activist Forest Whitaker. The NGO work to empower and inspire youth and women, promoting peace through conflict resolution and educational programs.
1. INTRODUCTION

In the introductory chapter of this thesis, beginning by providing a background to Social Capital, Information and Communication Technology (ICT) and Uganda. Followed by a discussion of the research gap as well as the purpose and research question of the study. Continuing, choice of subject, preconceptions and delimitations will be debated.

1.1 PROBLEM BACKGROUND

The gap between the developed and developing countries is continuing to grow according to recent studies (The World Bank, 2019). The rich becomes richer, while the poor becomes poorer. The latter being deprived from basic services in society such as education and health care, which in turn only will continue to grow the gap even further. Even in the more stable developing countries, where education and health care are accessible, there are many other struggles which prohibits economic expansion amongst the poor.

Today, many people, jokingly, have done their own modification to the well-known pyramid from Maslow's Hierarchy of Needs Theory. The pyramid is built upon five levels, where the more basic human needs in the bottom of the pyramid must be satisfied before the higher levels of needs can be fulfilled (Maslow, 1943). The modification, which has been circling on the Internet for the past few years has added an extra level of basic human needs in the very bottom, reading Wi-Fi or simply The Internet. Although this, evidently is meant as a joke, truth can be found in the joke. Having access to the Internet is not a basic human need for survival, but to many it is ubiquitous and much of their everyday lives is relied upon their access to it. Furthermore, the Internet is an important driver for growth and development, which will be discusses further down in the thesis.

1.1.1 SUSTAINABLE DEVELOPMENT

In September 2015, the Heads of State and Government and High Representatives had a meeting at the United Nations Headquarters in New York, where they decided upon seventeen new global Sustainable Development Goals (United Nations, 2015). A blueprint to achieve a better and more sustainable future for all, addressing challenges the world faces every day. Challenges including poverty, inequality, environmental degradation, climate change, prosperity, and peace and justice (United Nations, n.d). Together with these goals, they presented a plan, called Agenda 2030. A plan to transform our world through sustainable development, a plan that shall be fully implemented by the year 2030. The intentions with the goals are to stimulate action in areas of critical importance for humanity and the planet. These areas are: people, planet, prosperity, peace, and partnership.

The main area of concern for this thesis is the area on prosperity, the United Nations (UN) are determined to provide a world where everyone can enjoy economic, social and technological progress that occurs in harmony with nature (United Nations, 2015). An area that focuses on the importance of economic growth and technological development everywhere. It also highly relates to one of the seventeen sustainable development goals, goal number nine. Goal nine concerns the Industry, Innovation and Infrastructure, and
one of the main objectives with this goal is investments in ICT in relation to sustainable development and the empowerment of the communities. A target with this goal is to increase access to ICT and provide universal, but also affordable access to the Internet in the least developed countries by 2020 (United Nations, n.d).

The UN recognizes the big spread of development between countries and know that sustainable development in rural areas is of big importance in order enforce and implement their sustainable development goals 2030. African countries are classified as some of the most vulnerable ones in relation to sustainable development and are facing a lot more challenges that other countries may not endure (United Nations, 2015). The significance of rural development initiatives is therefore eminent, and actions that needs to be made with this in regard is for example the development and improvement of access in rural areas. Giving access to information and communications technologies to support Internet access, whilst also making sure these technologies can be used in effective manners (United Nations, n.d).

### 1.1.2 AFRICA

The United Nations Development Programme released a sustainability report in 2018 (p. 34), discussion the different areas and goals within Agenda 2030, going through each goal addressing developments and successes, but also what challenges that Africa are still facing. One of them being electricity and energy struggles. While the access to electricity is a non-existing problem in advanced economies, the access is evidently limited in most of Africa. This is a major obstacle for the development of Africa as stable access to electricity one of the key ingredients for a success in this field.

A consequence of the poor and unstable access to electricity, much of Africa has been lagging behind in terms of the industrial revolution. Many other factors, such as poor governance, history of civil war, slavery and colonialism, have also played a vital role in the slow pace of development for the continent. This has led to a high rate of illiteracy and unemployment which in turns slows down the pace of development (The World Bank, 2019).

Africa is one of the poorest continents in the world, despite being multifaceted wealth. Multiple initiatives have been launched in the continent to boost its development, but most of these fails to meet development challenges. As other parts of the world keep on the developing, Africa is trying to catch up. When one challenge is met, the world has developed further and Africa need to catch up again. Studies have shown ICT could be one of the solutions to these challenges. It is said it can lead to rapid development with the modernization of various sectors. Nonetheless, in order to gain benefits retained from ICT, the availability to the technology needs to be efficient and accessible to everyone (Etoundi et al., 2016, p. 2).

Besides being one of the poorest continents in the world, Africa has also faced a lot of violence and conflicts. The continent has been damaged by civil wars and have had to suffer through colonization and slavery. This is one of the many limitations Africa has had to face whilst trying to develop in the same speed as other continents. One thing that has been proven to be useful in post-conflict reconstructions in Africa is social capital (Baliamoune-Lutz, 2011, p. 337.) This is because social capital revolves around trust, sharing values, and creating peace and harmony in society again. Rebuilding social capital is therefore one of the most prominent tools to regain trust and respect in post-conflict areas, where there once was so much hurt and violence (Addison & Brück, 2009, p. 129).
1.1.3 INEQUALITIES IN ACCESS OF ICT

The past decades have been characterized by rapid expansion of the global economy. While some countries have been feeling the economic prosperity, it is evident that others have not. Income inequalities are continuing to grow and many emerging markets are lagging further behind than ever (Baek & Shi, 2016, p. 49). This has opened up the debate regarding how wealth is distributed, both on a country to country basis, but also within each country by itself. There are many reasons to this continuous inequality gap, one being the increasing connectivity throughout the world. While many developing countries and rural areas are getting connected to the rest of the world through ICT infrastructure, others are still in the early stages of the process.

ICTs does not only foster digital opportunities and social inclusion, but it also enhances learning, information sharing and the transformation of knowledge to rural societies (Ponelis & Holmner, 2015, p. 163). For these reasons, it is important to continuously work with implementation projects of such technology in the third world to prevent these economies from ending up even further behind the developed countries than they are today.

Having a well-established ICT infrastructure is of substantial importance for economic growth, even more so today as markets are more globalized than ever (Lee & Brahmasrene, 2014; Ishida, 2015; Rohman & Bohlin, 2014; Shahiduzzaman & Alam, 2014; Pradhan, Arvin, Norman, & Bele, 2014; WTO, 2008; Jorgenson & Stiroh, 1999, cited in Pradhan et al., 2018, p. 91). It is therefore of no surprise that many governments in developing countries have ICT infrastructure programs on the top of their agendas (Pradhan et al., 2018, p. 91). Uganda is no exception to this, the country has a several ICT projects currently going on, both from the private and public sector (Ministry of ICT & National Guidance, 2018). From the private sector, one of the leading providers of ICT in the world, namely Ericsson AB, has teamed up with the non-government organization Whitaker Peace and Development Initiative (WPDI). Ericsson AB Uganda works as the technology partner to “help young people who have lived through conflict and violence learn how to create positive change” (Ericsson, 2019) in northern Uganda.

Inequalities of access to ICT is, of course, not only a matter geopolitics and income but also a matter of gender, age, and status. In a brief from SIDA (2015), the importance of human rights and gender equality both online and offline is discussed. ICT is a powerful driver for empowerment for all demographic groups, and a strong promoter for gender equality. Further, Linda Raftree for UNICEF (n.d) confirms the role of ICT and the opportunities it brings to the women and the youth, in both developed and developing countries. A study in Kenya showed how ICT access in rural villages helped women pursue online long-distance education and gain a second change in their academic career. A significant impact was found and as much as 70% of women made use of the knowledge which they learnt through the educational programs (SIDA, 2015).

1.1.4 UGANDA

Sir Winston Churchill (1909, p. 87) once wrote: “...the Kingdom Uganda is a fairy-tale. You climb up a railway instead of a beanstalk, and at the end there is a wonderful new world”. It is also said he declared Uganda to be the ‘the Pearl of Africa’ (Government of Uganda, n.d). Once a British colony, the country obtained formal independence in 1962. This led to an array of domestic conflicts and civil wars, and it was not until the late 1980
the country begun its way back to relative stability as Yoweri Kaguta Museveni became president (Central Intelligence Agency, 2019).

Uganda has one of the youngest and fastest growing populations in the world, totalling with approximately 41 million people. Due to decades of civil war, the median age is as low as 15.9 years (Central Intelligence Agency, 2019), which makes it indisputably clear that excessive resources need to be spend on empowerment of the youth. A critical role for youth empowerment is the ability for them to make their voices heard and permission to participate in important matters (Linda Raftree, n.d.). This is even more important in a country with such a young population as Uganda. However, due to scarce resources and limited access to connectivity outside the bigger cities, this is not a reality for most of the youth in the country. Although studies have shown that there is a strong willingness among the younger population to adopt ICT into their lives, for many, the access is far off.

Today, Uganda is a country of relative stability compared to other countries in its regions. The unemployment rate is fairly low at 9.2% (Uganda Bureau of Statistics, 2018) and the biggest working sector is, rather unsurprisingly, agriculture, which employs about 71% of the labour force (Uganda Bureau of Statistics, 2018).

As expected, the Ugandan economy faces many challenges. The economy has grown at a slower pace, which has led to a reduced impact on poverty. This slowdown has mainly been driven by adverse weather, private sector constraints, and unfortunately poor execution of public projects (The World Bank Group, 2018). Instability in South Sudan, bordering to Uganda in the north, has led to disruptions in the main export market, and an increase in Sudanese refugees. The country also faces challenges due to poor economic management, endemic corruption, and the governmental failure in relation to investment in health, education, and economy for the younger generation (Central Intelligence Agency, 2019). There is however evidence that Uganda’s economy seems to have rebounded in the latter half of 2017. This change is largely driven by the growth in information and communication technology services and favourable weather conditions for the agricultural sector (The World Bank Group, 2018).

As mentioned, the region has a violent history, with wars roaming for decades (Annan et. al., 2011, p. 882) both within the borders of Uganda and in their neighbouring countries. The infrastructure in the rural villages are poor and norther Uganda has for these reasons among others, been prevented from developing in the same pace as the rest of the nation. As a result of these limitations, social capital has become imbedded in their culture. Social Capital is a form of economic set up marked by trust and cooperation for the common good (William, 2006, cited in Tonya & Mbeye, 2017, p. 81) rather than for individual purposes. The strong presence of social capital in the region comes to no surprise when looking at the scores for Hofstede’s Cultural Dimensions for Uganda. Uganda scores low in the ‘individualism vs. Collectivism’ spectrum, which implies Uganda has a strong tendency to emphasize the ‘we’ before ‘I’ (Rarick et al., 2013, p. 4-5).

1.1.5 WPDI & THEIR WORK WITH UGANDAN YOUTH
Whitaker Peace & Development Initiative (WPDI) is a non-governmental organization (NGO), with a mission to help societies and communities impacted by destructive conflicts transform into safer and more prosperous places. WPDI work to empower and inspire youth, women and global citizens to promote peace across the planet. One of their initiatives is to mobilize the power of youth through project concerning capacity-building
and development, connectivity, armed violence, insecurity, ethnic tensions and also concerning the limited opportunities for socio-political development (WPDI, n.d).

In 2012 WPDI launched a program in Uganda called the Harmonizer Program (Appendix 1), with the objective being nurturing a generation of peace leaders in Northern Uganda. The NGO has works in several locations in the north, the two main ones being in Gulu and Bweyale. With help of their key partners, Ericsson AB Uganda, they are able to provide the youth with computers, mobile phones, basic ICT and media training and tools. Ericsson AB Uganda also provides the facilities with connectivity and broadband, free to use for everyone in the villages (WPDI, n.d).

### 1.2 THEORETICAL POINT OF DEPARTURE

#### 1.2.1 INFORMATION & COMMUNICATION TECHNOLOGY

Information and Communication Technology (ICT) is an umbrella term for all technology used for communicating and sharing information, such as land-line telephone networks, cellular phone infrastructure, smartphones, and broadband. Broadband and the Internet being two of the most significant drivers for economic development and prosperity (Pradhan et al., 2018, p. 93).

Furthermore, some researchers argue that the ICT paradigm surpasses the historic revolutions in terms of spread of industries affected and the depth of the social consequences (Freeman, 2009, p. 35). ICT affects almost all aspects in every industry, from design and production, to how the customers purchase and use the goods or services. It has played a vital role in globalizing the economy and enabled social networks to grow from including the members of your village or neighbourhood to including individuals from all over the world.

Although the implementation of ICT has enabled the developed countries to come a long way, developing markets are still far behind in the ICT revolution. About 30% of the world’s youth and 82% of the households in Africa lacked access to the Internet in 2017 (International Communication Union, 2017). Limiting this to Uganda, out of the country’s approximately 41 million population, as much as 69% of the populations does not have access to the Internet (Miniwatts Marketing Group, 2017).

#### 1.2.2 SOCIAL CAPITAL

Ever since the topic of social capital arose, there have been discussions on what the definition of the concept is. Robison et al., wrote an article in 2002 analysing the definition social capital, and whether or not it can classify as capital. In the article one is able to read the definitions and argumentations on the subject. In the beginning, social capital was limited to answering the question: what is social capital? But Robison rather asks: where does social capital exist? How can social capital be used? How can social capital be changed?

Smithson (1982, cited in Robison et al., 2002, p. 5-6) referred social capital as a person’s or groups sympathy toward another person or group, and that this sympathy could produce potential benefit, advantage, and preferential treatment for other people beyond that expected in an exchange relationship. Separating what it is – sympathy, with what it does - potential benefit, focusing on the possible transformative capacity of capital embodied in the human relationship.
Further social capital involves a social relationship between a provider and a recipient. The provider could be a mother who is sympathetic and gives special treatment to her child, whilst the recipient is her child. Providers could also be all members of a certain categorical group (age, gender, race, etc.) acting individually in concerns of social custom and is not necessarily aware that others are doing the same, whilst the recipients are all or some of the members within the categorical group (Robison et al., 2002, p. 6-7).

Robison et al., also examines social capital’s relation to essential properties of physical capital, properties that social capital should fulfil in order to classify it as actual capital. These properties are: transformation capacity, durability, flexibility, substitutability, decay, reliability, opportunities for (dis)investment, and alienability. The authors present each property and explain how social capital have these properties. Saying that some social capital can be used for economic advantages, other for social fulfilment, some for information, and some for validation (Robison et al., 2002, p. 8-17). At the end of the article Robison et al., introduces their definition of social capital, which is also the definition of social capital that we will use in this thesis:

“Social capital is a person’s or group’s sympathy toward another person or group that may produce a potential benefit, advantage, and preferential treatment for another person or group of persons beyond that expected in an exchange relationship.” (Robison et al., 2002, p. 19)

1.2.3 ICT & SOCIAL CAPITAL

Although social capital has an important role in societies and is commonly observed in African cultures, it also has an important relationship with ICT-related research. A positive correlation between the two have been asserted in several studies (Adler & Kwon, 2002; Yang et al., 2007; Lee, 2009, cited in Ahmed, 2018, p. 175), and as a result of this, social capital has been used extensively in literature regarding the topic to explore its impact on value creation, knowledge sharing, and team performance, among other factors (Ahmed, 2018, p. 175).

The availability of ICT in developed countries is rarely an issue, research by the International Communication Union (2017) shows that 94% of the population aged 15-24 use the Internet on regular basis, this benefit comes from ownership of devices and private subscriptions (James, 2009). The same research shows that only 10% of the same demographic group in developing countries in Africa and Asia has access to the technology (International Communication Union, 2017). Here, private ownership is limited to a small group of relatively rich individuals in urban areas. For the majority of the population in these countries, sharing access to the technology is often the only means of benefitting from the device or subscription (James, 2009). Studies show that the internet by itself combined the sharing the source of it with your community has a positive impact on social capital and development in the area (Quan-Haase & Wellman, 2004, p. 125).

1.3 RESEARCH PURPOSE & RESEARCH QUESTIONS

As discussed in the previous sections, implementation of ICT infrastructure and education in developing countries is of great importance for both economic growth and the development of rural villages. The purpose of this thesis is therefore to explore and analyse the relationship between ICT and social capital, and thereafter draw conclusions regarding how the two interplay. A lot of research has been conducted within the field of
ICT, social capital and economic performance, both on their own or with one of the other concepts. However, after a comprehensive literature review, a research gap was identified. No previous research could be found looking at the association between ICT, Social Capital, and their effect on the young population in rural areas. Therefore, this research will focus on the effects the relationship between social capital and ICT have on the Ugandan youth in rural villages in northern Uganda.

Further, the research aims to see if there is a connection between the two concepts and economic performance in these areas.

By designing a thorough interview guide and conducting in-depth interviews with employees and beneficiaries of a NGOs ICT initiative, as well as employees at the organization's ICT partner, the research aims to answer the following research question:

*What impact does Information and Communication Technology (ICT) have on Social Capital among the youth in rural villages in northern Uganda?*

**1.4 CHOICE OF SUBJECT**

We are students enrolled the International Business Program at Umeå School of Business, Economics, and Statistics (USBE). Majoring in finance for our one-year masters, this thesis is written as the degree project for our Master of Science in Business and Economics. From our undergraduate- and graduate courses, we have gained a deep understanding for all fields within business administration, all of which together will lay the basis of this thesis.

As a student at the International Business Program, you are taught to always keep an international and open perspective, the choice of reaching outside of Sweden for our thesis therefore came naturally. As a contribution to this, all courses taught at USBE should include some sustainability aspect in the course material, either from a social or environmental perspective. The combination of finance and sustainability, and both our pre-existing interest for business development and developing markets, lead us towards the final decision of writing the degree project regarding sustainable development in a third world country. It should however be toted, that, according to Nyström & Dahlberg (2001, p. 345), preconceptions in the field of study is most often used in such a way that lacks usefulness in modern research. Nyström & Dahlberg advice that researchers, to avoid such a problem, should take precautions when reflecting upon research methods and the meaning of the collected data.

We came to write the thesis in Uganda as this is where we found the most interesting project in the field of sustainable development through our contacts at the Swedish Embassy and Ericsson AB Uganda. We chose to study the Harmonizer Program is it was well-established and financed by legit organizations. The program also entailed all aspects, such as CSR, ICT, education and youth empowerment, which we were hoping to write about.

**1.5 EXPECTED CONTRIBUTIONS OF OUR STUDY**

**1.5.1 THEORETICAL CONTRIBUTIONS**

There is much previous research to be found within the fields of ICT and Social Capital, as well as their individual contribution to economic growth. Most of the research has been
conducted in developed economies where there is a vast accessibility to proficient data. There are of course exceptions where the research has been conducted in emerging and developing markets, but the amount is scarce.

What we have not found when looking through the available literature is the combination of the two concepts and their combined effect on economic growth. This is where we found or research gap which we with this thesis aim to explore. In line with the purpose of this thesis, we hope to explore and analyse a new field in ICT, Social Capital, and Economic Growth, which in turn will contribute to future research.

The thesis is also expected to help understand what role ICT takes in the perspective of social capital among the youth in rural villages.

1.5.2 PRACTICAL CONTRIBUTIONS
The combined result from this thesis and future research will help governments, non-government organizations, as well as other stakeholders to see the positive effects of proper implementation, usage and education in ICT. In combination with Social Capital, ICT can help developing countries to evolve at faster pace. By allowing the population to access the global market, competitiveness will increase as well as the feeling of inclusiveness.

The future is lying in the hand of the youth, which is why it is of great importance to give them the chance to learn and keep up with the development. In today's society, it is almost impossible to conduct business without the access to information and communication technology. The Technological revolution has taken over the world, and needs to be integrated in all parts of the supply chain. In countries where primary education is expensive and not given, organizations like WPDI and the Harmonizer Program plays a vital role to enable growth, empowerment and inclusion. This research hopes to find a relationship between ICT education, social capital and economic performance in rural villages, stemming from projects like the one being studied.

The research also aims to provide a theoretical background and work as a pre-study for future, more extensive, research in the field, as well as an eye-opener for other organizations.

1.6 DELIMITATIONS
There are many definitions of social capital, many of which are contradictory to each other. We have therefore chosen to use the article ‘Is Social Capital Really Capital’ by Robison et al., (2002) as the base for our interpretation. The research it has been cited in many peer reviewed articles after its publication and it lays out a good basis for the concept and our thesis.

Since the purpose of this research is to analyse how ICT and Social Capital interplay and effects the young population in rural villages of northern Uganda, we have chosen to travel to Uganda for the duration of one month in order to conduct the interviews and collect all necessary data. With the help of Donald Waigumbulizi, Constantine Amulen, and Evelyn Laruni, interviews have been set with employees at Ericsson AB Uganda and WPDI, as well as beneficiaries of their joint project.

Moreover, it was chosen to only look into the impacts of the specific project between Ericsson AB Uganda and WPDI in northern Uganda, and draw conclusions from the data
collected from the interviews in combination with observations from the stay in the country. For this reason, it was decided to only hold interviews with people directly linked to the Harmonizer Program.
2. THEORETICAL FRAME OF REFERENCE

In this chapter, we examine and discuss existing literature related to Social Capital, ICT and Economic Growth. We aim to provide a clear and distinctive connection between the three theories. We then end this chapter with a summary of the theoretical framework.

2.1 ICT & ECONOMIC GROWTH

As mentioned in the previous chapter, ICT is the umbrella term for all technologies and infrastructures used for information and communication purposes. Some of the more important components of ICT being the Internet, broadband, computers, and smartphones. Since the introduction of these technologies on the market, they have together played an important role for the development of society. A study conducted by Jayakar and Park (2013, p. 191) showed that countries with a well-established and stable ICT infrastructure were less affected by the global financial crisis of 2008. With this in mind, the European Union and the U.S. have since the latest recession in 2008 implemented several acts and policies aiming to decrease unemployment and spur economic activities with the use of ICT (European Commission, 2010, p. 3; Jayakar & Park, 2013, p. 181). Because of its vital role in modern day business, such acts and policies are implemented for the purpose of acting as a shield at the event of a new global crisis (Pradhan et al., 2014, p. 92).

2.1.1 PREVIOUS RESEARCH

Studies about ICT and economic growth have been conducted ever since the 1960s (Ishida, 2015, p. 80), and since then the more part of them have confirmed the positive relationship between the two components (Bacache, Bourreau, & Gaudin, 2013; Bertschek et al., 2013; Bojnec & Ferto, 2012; Bouras, Giannaka, & Tsiatsos, 2009; Brewer et al., 2005; Crandall et al., 2007; Czernich et al., 2011; Dwivedi, Lal, & Williams, 2009; Gillett et al., 2006; Holt & Jamison, 2009; Koutroumpis, 2009, cited in Pradhan et al., 2014, p. 93; Lee et al., 2012; Jorgenson & Vu, 2014; Jayakar & Park, 2013). The studies are using different macroeconomic control variables for economic growth, such as employment rate, inflation rate, government expenditure, education, etc., as well as different ICT variables, such as broadband and telecommunication. Although differences in the variables, they have all come to the same conclusion; ICT promotes economic growth on both the domestic and global market.

Some studies have however showed different results, Shui & Lam (2008, p. 715) argues that there is no evidence that the level of telecommunications usage has a causal relationship with economic growth. Their study used panel data of real GDP, tele-density, and the penetration rate of telecommunication for 22 central, western and eastern regions in China during 1968-2004.

Other studies conducted for similar time intervals, 1960-1963 and 1970-1990 respectively, argues that while telecommunications do have a positive and significant relationship in developed market, (Hardy, 1980, cited in Koutroumpis, 2009, p. 472) there was no such relationship in developing markets (Roeller & Waverman, 2001, cited in Koutroumpis, 2009, p. 473).

Koutroumpis (2009) confirms this with his own research about broadband availability as a driver for economic growth for 22 OCED countries. The results were significant only
for the Scandinavian countries, which all have a penetration rate of >30%, but not the
countries with a lower penetration rate. Koutroumpis therefore identifies >30% as a
critical level which translates to at least half of the population having access to broadband
connection.

The results are contradictory, but more recent studies have however shown that ICTs now
have a strong correlation with economic growth in developing markets too, if not always,
then depending on how the technology is being used (Okon, 2015, p. 317).

2.1.2 ICT INVESTMENTS
Pradhan et al., (2014, p. 92) explains how ICT infrastructure has one important feature
which is not present in other types of infrastructures, and that is the presence of network
externalities. The more users of the technology, the greater will the network become, and
the more value can be derived from each and every user (Pradhan et al., 2014, p. 92;
Koutroumpis, 2009, p. 472). This is a unique feature which cannot be observed in other
public infrastructures such as transport and drainage. Thus, investments in ICT
infrastructure are likely to generate a greater return than other infrastructure investments
(Pradhan et al., 2014, p. 93; Koutroumpis, 2009, p. 479). Seeing the potential in retaining
a great market share in developing and emerging markets, many foreign multinational
corporations (MNCs) in the ICT industry have seized the opportunity to invest in project
in these markets (Pradhan et al., 2014, p. 92).

However, in order to generate profit in the future, the corporations intending to penetrate
a developing market might have to engage in voluntary and non-profit projects
disconnected from their core business, so called Corporate Social Investments (CSI).
the most commonly used practice of CSI in Sub-Saharan Africa is philanthropy
investments. Initiatives of such kind usually directed to minorities, healthcare and
vulnerable communities and aims to empower society in the longer run. Other common
CSI practices involve education, employment and the environment (Shukla, J., 2018).
The projects aim to help the market overcome specific difficulties and barriers to the
market.

For the purpose of this thesis, focus will lie on the CSI projects involving ICT and the
impacts it has on the development and growth of rural villages in Uganda. That is,
empowerment of minorities and vulnerable communities through ICT access and
education.

2.1.3 THE ICT PARADIGM AS AN ECONOMIC DRIVER
Advocates of ICT for development purposes argues that this new paradigm is just as
important for the economic revolution as the historic agricultural and industrial
revolutions were at their time (Lock-Teng Low et al., 2011, p. 6140). It has enabled
incredible economic growth in the western world where it first set foot during the second
half of 20th century (Freeman, 2009, p. 34). By the end of the century, is was evident that
technology was the new economic driver for growth (Freeman, 2009, p. 34; Jorgenson &
Vu, 2016, p. 383). Although still only being a small proportion of the aggregate
production in the U.S., the ICT industry constituted for more than half of the country's
economic growth in the 1990s (Freeman, 2009, p. 34).

Some of the emerging countries saw the potential of the ICT paradigm in the early stages
and have now become world leaders within their specific field. China, the leading country
for hardware, and India, the leading country for software and ICT services (Jorgenson &
Vu, 2016, p. 395), have since had a history of being two of the fastest growing economies in the world. Although the Chinese rapid economic expansion has been slowing down in recent year, it still overtakes the growth of the G7 economies and it is now estimated to surpass the U.S. economy in the coming years, meaning it will become the largest economy in the world (Jorgenson & Vu, 2016, p. 392; Luckstead et al., 2014, p. 4005). India will in turn surpass Japan (Jorgensen & Vu, 2016, p. 392) and in effect become the third largest economy in the world, just behind the U.S. and China.

In developed markets, it has historically been much focus on establishing a proper technological infrastructure with land-line telecommunications and proper electric grids. Today, in favour for the African markets, there has been a shift from stable land-lines to mobile telecommunication. The up-front cost of installing cellular infrastructure is substantially lower than for landlines, it is also less time consuming and can be utilized by far more individuals (Lee et al., 2012, p. 468). Mobile phones also bring more value to the user than the traditional land-line phones as they can be utilized for several more purposes such as texting, accessing social platforms, and browsing the Internet. All of which can be done at any location.

Because of the now advanced technologies behind cellular infrastructure, Africa, which in 2006 only accounted for about 2% of the total number of land-lines in the world (International Telecommunication Union, 2007, p. 1), can skip the step of installing expensive and ineffective land-lines (Lee et al., 2012, p. 468). By skipping such steps, the process of including rural areas in Africa to the knowledge economy can be made faster, and thereby promote further economic growth (Lee et al., 2012, p. 469).

ICTs role in increasing efficiency and production is easy to comprehend, it also plays an important role in the development of society as it enables people to take part of the current knowledge economy. It can help increase one’s social network to grow beyond the members or your village, to including individuals from all over the world. It also helps strengthen the possibility for scientific research, information sharing, social participation and capacity building. ICT also increase the likelihood of retrieving diversified information and source criticism (Ponelis & Holmner, 2015, p. 3). Furthermore, usage of ICT in both professional and private settings will decrease the associated transaction costs of delivering a message to another party. By cutting the time needed for information to reach from one party to the other, a firm or private person will increase efficiency and thereby increase competition. In such a case, there will instead be room a potential catch-up as more time can be spent on the crucial and time-consuming parts of life or business.

2.2 SOCIAL CAPITAL

In the introductory chapter we define social capital and explain the relation between social capital and economic capital. Presenting arguments on whether or not social capital can be classified as capital. As shown in the study by Robison et al., social capital is a form of capital which can generate economic welfare. The concept and its relationship to economic growth will not be further discussed.

Social Capital is far from easy to measure, but most studies conducted on the subject have a few concepts in common; trust, social networks and group memberships, and a shared set of cooperative norms.

2.2.1 TRUST

Trust is one of the measures that social capital seems to centre around. It includes the perception of loyalty and trustworthiness people feel towards others they interact and
work with. Putnam et al., (1993, p. 167-169) explained how the trustworthiness between people is of great importance. People who feel trust to one another will be able to accomplish much more than a group whom lacks trust. If members of a social network allow trust to spread, it can more easily create an “I trust you, because I trust her and she assures me that she trusts you” arrangement. The trust within the group is of great importance in relation to economic performance. One can see the importance of trust to economic performance by reflecting on the lack of it, and how that leads to a decreased number of opportunities (Boldea, 2012, p. 240).

Trust comes in different forms, at one end you have trust in people you interact with on a regular basis, such as family and friends. Whilst on the other end, you have trust in people you do not know. Researches define trust in various ways, Whiteley (2000, p. 454) divided trust into three categories; trust in family member, trust in fellow nationals, and trust in general. Where trust in general is the trust in people you do not know. Whilst Uslaner (2002, p. 6) sees generalized trust as the idea that most people can be trusted. Other researchers define and divide trust into thick trust and thin trust. Where thick trust is the trust you have for people you interact with regularly, and thin trust as the trust in people you do not know (Putnam, 2000, p. 136; Danielsson & Holm 2005, p. 510). There is also the distinction between bonding, bridging, and linking social capital, and that there is a notion of weak and strong ties. Bonding social capital emerges through links with family, friends, and neighbours. Bridging social capital one the other hand is the links that are slightly more distance, and linking social capital is the potential benefit that arises from ties with those outside one’s immediate group of contacts (Woolcock, 2001, p. 10). Trust is one’s expectations in others, faith in that they will behave according to an agreed plan. It ensures cooperative social behaviour, leading to the implementation of systematic joint efforts between parties (Thompson, 2018, p. 49).

2.2.2 SOCIAL NETWORKS & GROUP MEMBERSHIP
Secondly networks have an impact on social capital. Networks can be understood as the people you know or interact with, including informal interactions. Associational membership ranges from sports, teams to choral societies, to religious groups, to classmates etc. Associations can be split into two categories; horizontal and vertical. Associations where the members relate to each other on an equal basis, is called horizontal association. This could be members in a sports club for example (Knowles, 2006, p. 2-3). Whilst vertical associations are those where one could see clear hierarchical relationships, where strong power distance (Grootaert, 1999, p. 5). La Porta et al., (1997, p. 336) could see an example of this in the Catholic Church.

Group membership and participation in relation to social capital can be viewed both from an individual and a community level. Individual social capital is often computed by personal participation in community groups, counting the number of groups an individual is active in, either in form of hours or roles. Forming the notion that the number of organizational members or level of activity can demonstrate the social capital one possesses (Engbers et al., 2016, p. 541-542). In addition to the individual level, the community level can demonstrate social capital through the civic engagement of the number of organizations within a society, as this indicates opportunities for creating strong ties and low-cost relationships (Engbers et al., 2016, p. 541).

Some researchers find networks and associational membership to be a source of trust and cooperation. Seeing social capital as networks and norms, and see trust only as a consequence of social capital (Woolcock, 2001, cited in Knowles, 2006, p. 3). Whilst
other researches find trust to be a cause of social networks (Uslaner, 2002, p. 1). Knack & Keefer (1997, p. 1283-1284) contradictory to Putnam et al., (1993) found networks, measured by group membership, to be unrelated to trust and norms, and thus to economic performance. However, one can at least be certain that trust and networks are highly related to one another.

2.2.3 NORMS
The third concept often analysed through a social capital point of view is norms. Norms may include the formation of queues at the supermarket, a farmer helping his neighbour with the harvest, showing respect to other drivers in the traffic, not parking your car in spots reserved for the disabled unless you have a permit, and so forth (Knowles, 2006, p. 3). Social norms include the attitude one has towards civic morals and parents’ enthusiasm on interpersonal or individual achievements in child rearing (Kim & Kang, 2014, p. 48). Maru et al., (2007, p. 183) define social capital as a formation of norms, informal rules, and networks that enforces cooperation, trust and collective actions for the common good.

In regards to social capital, norms are a concept that is narrow and difficult to measure. Some say it is an important source of capital because of its ability to facilitate the increase of obligation and expectation. Whilst others explain cooperative norms as the social capital that correlates with important institutional-, social-, and economic outcomes (Enberg et al., 2016, p. 551).

2.2.4 SOCIAL CAPITAL & ECONOMIC GROWTH
Social capital encompasses features such as interpersonal trust, norms, participation in social organizations, and interpersonal and inter-organizational networks. Features that facilitate parties to work towards a shared general benefit. The notion of social capital stems from a form of capital that is comprised by the social structure of a group of people. It can therefore be said that a group’s work towards economic success is related the interpersonal support towards each member of the group (Boldea, 2012, p. 240).

Social capital can affect economic performance in a number of ways. One being the increasing number of mutually beneficial trades, which a high level of trust and cooperation can increase (Knowles, 2006, p. 7). Imagine a situation with two farmers whose crops ripen at different times, but do not have time to harvest by themselves, it makes sense that the two assists with each other's harvest. However, without trust the farmers would not be able to make this arrangement happen (David Hume, n.d., cited in Putnam et al., 1993, p. 163). For any situation where one has to rely on another in order for a transaction to happen, a high degree of trust between the two parties is a must (Knowles, 2006, p. 8).

Fafchamps and Minten (2004, cited in Knowles 2006, p. 9) argues that trust can reduce transactional costs. Stating that when there is trust between parties, agents can lower their guard and economize on transactions costs. There would be no need to, for example, inspect quality before buying or having to organize payment in cash at the time of delivery.

Knowles (2006, p. 23) argues that social capital can be added to the list of deep determinants of economic development. Deep determinants accounts for variables that affect income per capita, or other proxies of economic development, by their effect on factors such as accumulation or total factor productivity.
Trust, social norms, and social network can make economic transactions more efficient by reducing uncertainties and information asymmetry between the engaging parties. These would enable the participants to coordinate their activities for mutual benefit and reduce incentives for cheating. Thus, social capital is conductive to economic growth (Putnam et al., 1993, p. 170-185).

2.2.5 SOCIAL CAPITAL & ECONOMIC GROWTH IN AFRICA

For the purpose of this study, the effects social capital has on economic growth in Africa will be discussed. In 1998, Jonathan Temple conducted a study on social capital and growth in Africa. One of his findings were that developing countries with low social capital are more likely to have bad policy outcomes, low investments and slow growth. He also found that for two countries with the same level of income, the one with a higher level of social capital tends to have more schooling, more extensive financial systems, better fiscal policies, and a wider telephone network.

Social capital serves a prominent role in innovation activities in Africa. In the form of generalized trust, network-generated trust, and cooperative norms, social capital may reduce uncertainties entrepreneurs’ faces and hence spur entrepreneurial activities and increase economic growth and development (Baliamoune-Lutz, 2010, p. 344).

van Rijn et al., (2012, p. 112) distinguish that social capital is especially important for the poorest countries, as in these countries formal institutions are of the lowest quality. As mentioned in the introduction, Uganda’s agricultural sector is the biggest working sector in the country, and it is seen that social capital affects farmer’s livelihoods through enhanced adoption of new agricultural technologies. Like Baliamoune-Lutz, van Rijn et al., (2012, p. 120) found associations between social capital and innovation, especially in the form of the adoption of agricultural innovation. Agricultural innovation is found to be an important factor for economic growth and development in Africa (van Rijn et al., 2012, p. 112).

2.3 ICT & SOCIAL CAPITAL

Whether social capital and ICT has a positive or negative relationship to one another has been much debated over the years since the ICT paradigm started. Some argue the usage of internet has isolated people from the real world, while others believe the opposite that the Internet has only enabled people's network to grow beyond previous limits. Scientists are split, and Wellman et al., (2001, p. 437) states that there, at the time for their study, had yet not been a clear pattern of evidence for either side.

Over the years, there has been much research done in the area of the social impact of ICT. Researchers who how found a positive relationship for ICT as a driver for social capital argues that it increases communications between individuals both online and offline. It also creates more civic engagement on a local and global level since information can be transferred between individuals at a much faster pace than with physical interactions. The internet also lessens the gap between face-to-face meetings, as two people can keep contact and stay updated with each other's lives, although not physically meeting, at a low cost (Wellman et al., 2001, p. 438).

However, other studies have shown an inverse relationship between the Internet and social capital. Presenting arguments that the Internet promotes a decline in social capital. One argument being that the Internet could be diverting people from their true community because online interactions are inferior to face-to-face interactions. People might find it harder to foster complex friendships online, than offline. Over the Internet is can be harder
to provide emotional support and tangible material aid. The Internet may also draw people away from their physical environment, because by being online, the attention towards the physical and social environment decreases. The Internet may also lead people to depression and alienate them from interaction. Studies have found that the use of the Internet increases, social offline contact decreases, increasing depression and loneliness (Wellman et al., 2001, p. 439)

Veinot & Williams (2012, cited in Ahmed, 2018, p. 177) discusses the relation between social capital and ICT in three different contexts; interactionist, conflict, and functionalist. The interactionist context is defined by geographic co-location and institutional control, ranging from a ‘pure virtual’ to a ‘hybrid virtual’ community (Weber’s, 1947:1968, cited in Ahmed, 2018, p. 178). In an interactionist context social capital’s relation to ICT can be found when actors interact through social networks. Actors with common interests and experiences can come together and share information, knowledge and resources via various electronic means, such as chat rooms, online forums, bulletin boards, mobile phones, and e-mail (Asvanund et al., 2004, cited in Ahmed, 2018, p. 180). In a conflict context, elements related to power, domination, and resources is the core of its analyses. Conflict context pays more attention to civic institutions, like a government or the social elites, formations that can impact community life (Veinot & Williams, 2012, cited in Ahmed, 2018, p. 178). Within this context, ICT may play a mediate role in relation to social capital with direct influence. ICT can enforce power leaders with platforms where they can share informatics on topics concerning their recipients (Ahmed, 2018, p. 182). The functionalist perspective relates to the development of group cohesion occurring through boundary maintenance, where institutions dictate the difference between member and non-member. Maintenance targeting the development of shared meaning and practices, confirmation of identity, norms, trust, and relationship in an institutional setting (Ahmed, 2018, p. 179). In this context social capital can be found to play a significant role in advancing ICT adoption, diffusion and the overall usage of the technology. By advancements of ICT, the technologies can continue to create ways for actors to interact (Ahmed, 2018, p. 183).

Looking further into social capital and ICT in deprived areas. Matthews (2016, p. 419) have found that even though ICT cannot flourish extensive social capital in deprived neighbourhoods, it is clear social capital can offer low-cost ways for institutional social capital to develop and improve partnerships. In his research Matthews also found that social networks online often prone for social networks offline. Indicating that social networks starting online could potentially create social capital offline. Continuing, the research also showed that women were more inclined to replicate offline styles of interactions, using online social networks to enhance friendships. Men on the other hand, use the online spaces mostly for information finding. What one can be certain about is that, ICT has been found to have a positive effect on aspects of the interaction process, such as communication privacy, usage of shared codes, which can help develop social capital (Ahmed, 2018, p. 183).

2.4 SUMMARY OF THEORETICAL FRAMEWORK

By conducting a thorough literature search one can clearly see that the subjects of ICT and Economic Growth has been a topic interesting a lot of researchers. A lot of these researchers have found a positive relationship between the two concepts. Nevertheless, there are studies where no relationship could be confirmed (Shui & Lam, 2008, p. 715). Like mentioned earlier, more recent studies show a clear relationship between the two
components- ICT has also been found to be an economic driver in the modern society (Okon, 2015, p. 317). An economic driver that can, if used in an effective manner, help developing countries skip unnecessary steps and promote further economic growth (Lee et al., 2012, p. 469). Nonetheless, if this driver is supposed to sustain and develop in the future, investments in infrastructure is needed. Investments in long term projects that create sustainable development within ICT all over the world. Hence, projects in ICT are proven to generate great return (Pradhan et al., 2014, p.93; Koutroumpis, 2009, p. 479).

Just like the relation between economic growth and ICT, social capital is a commonly discussed topic on recent studies. Studies concerning social capital are largely related to how social capital can and should be measured. The literature search presented a lot of different result regarding this matter, but the three most commonly components used to measure social capital are; trust, social networks and group membership, and norms. Out of these three, trust is the measure that most studies explain as one of the more important components of social capital. Trustworthiness can go a long way in building a beneficial relationship between parties, whilst the lack of it is most often destructive (Boldea, 2012, p. 240). Membership in a group can create a strong bond between participants, creating strong ties which can be transformed into shared efforts in development, and actions of activities that generate collective benefits. Sharing the same views in moral, ethics, and norms as other within a society could also create social capital. It can enforce networks working together towards collective benefits (Maru et al., 2007, p. 183). Social capital is often comprised by these three features, which can make economic transactions more efficient, thus generating efficiencies that could affect economic performance positively.

The relation between social capital and ICT is often found on the Internet or on social media’s, and often relates to the connection people have online. Studies have proven to have split views on whether ICT is positive or not for social capital. Some argues that the online presence can enable people’s network to grow, whilst others believe it can isolate people from the offline world. The relationship between the two concepts can come in different forms, and create different scenarios depending on the context where the interaction between the two takes place.

Throughout the literature review, a research gap was identified. That is, the impact social capital and ICT has on the younger population in rural areas. How the effects of the interaction between these two concepts influence the youth, and what future contributions it might have on them. Following in this research, youths in northern Uganda will be interviewed and observed, and an interpretation of their answers will be made and more knowledge in the matter will be found.

Thomas & Brubaker (2000, p. 213) argue the usage of a visual model to summarise the theoretical framework will help the reader to better understand the groundwork. In figure 1, a model with the connections between main components of this thesis has been developed.
Figure 1 - Conceptual model

ICT

Social Capital

Economic Performance
3. SCIENTIFIC METHOD

This chapter aims to present the philosophical positions chosen in this research, explaining the research positions in concern of paradigm, ontology and epistemology. Continuing a comprehensive text relating to research approach and design will be presented, explaining the choices made for this thesis. The chapter closes with the decisions made in regard to literature search and finishes with the chosen theories for the research.

3.1 PHILOSOPHICAL POSTION

To carry out a study successfully, it is important to identify the research paradigm in the early stage of the process. The paradigm should include a philosophical framework, which lays the basis of the research and thesis. It should be based on philosophies and assumptions about the world and the nature of knowledge (Collis & Hussey, 2014, p. 42).

3.1.1 PARADIGMS

Today, there are two main paradigms, positivism and interpretivism, which have been developed as a result of the knowledge that we hold today (Collis & Hussey, 2014, p. 42). It is crucial to carefully debate which paradigm should be used for the study, as it determines the path it will take. The philosophical position will enable the researchers to select appropriate methods for their research question. Each of the paradigms determine one’s view of the nature of reality, ontology, and the nature of knowledge, epistemology (Collis & Hussey, 2014, p. 47).

The two paradigms used in science today are based on the knowledge that we currently hold. For centuries, only positivism was used as there was no distinction between natural science and social science. Most research at the time concerned the inanimate objects of the physical world, and it was not until later attention was turned to include social phenomena (Collis & Hussey, 2014, p. 44).

Positivism, which has long rejected qualitative research as a scientific method (Kvale, 1996, p. 61), is characterized by the belief that reality is independent. Research of this philosophy aims to generalize and explain phenomena in a scientific way (Saunders et al., 2009, p. 113). It argues that only knowledge confirmed by proper research can and should be considered as knowledge and credible data (Bryman & Bell, 2011, p. 13; Saunders et al., 2009, p. 11). The researcher will create a research question, anticipate the outcome of the study and then collect necessary data in order to measure the cause of study. Individuals belonging to this paradigm believes that social phenomena can be measured and should not be based on the values and though of the researcher (Saunders et al., 2009, p. 114). The researcher should, in other words, distance herself from what is under study (Snape & Spencer, 2003, p. 6). Positivism is, for these reasons, usually associated with a quantitative research method which can be statistically analysed (Collis & Hussey, 2014, p. 44).

Interpretivism was developed as a response to the flaws of positivism in the field of social science, and is grounded in the critics that arose against the paradigm in the advent of industrialization and capitalism in the late 19th century (Smith, 1989, cited in Collis & Hussey, 2014, p. 43). As a counter-reaction to positivism, interpretivism is based on the belief that social reality is highly subjective and shaped by the observer's perceptions.
The researcher will interact with what is being studied and draw specific consolations regarding the phenomena based on their experience. The paradigm is therefore often associated with a qualitative research method which seeks to describe and come to terms with the meaning of the outcome (Collis & Hussey, 2014, p. 45).

Both of the paradigms are under constant evolution and there are few researchers who apply pure forms of the two main paradigm to their study today. Some researchers (Alvesson & Sköldberg, 2018, p. 20) argue the two main paradigms are too superficial and anthropocentric. Especially positivism has been under debate of whether it is still an applicable research philosophy.

This thesis aims to explore, analyse and understand how the implementation of ICT in rural villages in Uganda can affect social capital, and thereby potentially lead to economic development in this region. Social capital is a highly individual perceptions of development in a society, and can only be measured or seen through the eyes of the person who is part of it, or observed from a close distance. As a result, from using a positivistic method, removing the individual from their actions would lose the sole purpose of social capital. Another factor which makes interpretivism more applicable or this study is the scarce amount of resources and previous research in the specific field.

### 3.1.2 ONTOLOGY

Ontology determines the author's view of social reality, and whether it exists only one social reality shared among all, or if there is a multi-dimensional reality dependent on the individuals in it (Snape & Spencer, 2003, p. 11). Ontology is commonly viewed as either objective and external, or subjective and socially constructed to the researcher (Saunders et al., 2009, p. 110; Collin & Hussey, 2014, p. 47).

In social research, objectivism as an ontological position is the belief that a social construction is independent of its inhabitants, but created by the given roles, rules, and regulations within the setting (Bryman & Bell, 2011, p. 21). Objectivism lies under the positivist philosophy and further argues that individuals are disconnected from their actions in social and cultural environment as they are simply following the rules and regulations given to them. The result and conclusion from one study can therefore be applied to other similar settings, both in terms of professional settings and culture.

Subjectivism on the other hand stress the need for understanding the preconceptions and individuals of a setting. This ontological position is often associated with the term 'social constructionism' and stems from the interpretivist philosophy of being active and subjective to what is being research, as it is dynamic and under constant evolution. Subjectivism argues that the results of a study is only applicable in its very own setting, since the perception and acts of different individuals cannot be generalized (Saunders et al., 2009, p. 111).

The research of this thesis aims to explain how ICT impacts the creation of social capital in rural villages in northern Uganda. The setting is highly specific and the exact circumstances in the villages which will be studied cannot be perfectly projected on other settings. To be able to investigate the relationship of the two variables, in-depth interviews will be held with the subjects of the study combined with observations of the settings. It is therefore argued that a subjective, or socially constructive, ontological position is preferred. As it enables the research to investigate the dynamic environment of which the Harmonizer Program is taking place.
3.1.3 EPISTEMOLOGY

Epistemology concerns the authors perception of what should be considered as accepted knowledge in the field of study (Collis & Hussey, 2014, p. 47; Saunders et al., 2009, p. 112; Bryman & Bell, 2011, p. 15). It lays the basis of knowledge and how it is derived from reality (Snape & Spencer, 2003, p. 13).

In a positivistic approach to epistemology, the main purpose of a study is to test theories and hypotheses to help with the development of new theories and laws (Bryman & Bell, 2011, p. 15; Saunders et al., 2009, p. 113). In order to accept something as knowledge, positivistic scientists argue that it should be backed by the collection of credible data. The data should then be analysed with appropriate scientific methods in order to draw conclusions about the subject of study. Positivists argue that knowledge should be objective and theoretically available for everyone (Long et al., 2000, p. 190; Collis & Hussey, 2014, p. 47) and the author herself should therefore be more concerned with the facts than her own impressions (Saunders et al., 2009, p. 114). Research of this philosophy is for these reasons more common in the field of natural science (Saunders et al., 2009, p. 113).

The interpretivist aims to minimize the distance between themselves and the cause of research (Saunders et al., 2003, p. 116; Snape & Spencer, 2003, p. 13). As a result of this, they are typically involved with their research to a high extent and is therefore more common in social science. Knowledge is retrieved from subjective information provided by the participants under study, that is, the social actors (Saunders et al., 2009, p. 116). The roles of each social actor are dependent on its interactions with other actors of society and can therefore not be generalized, but is instead accepted as facts for the given situation (Bryman & Bell, 2011, p. 16; Saunders et al., 2009, p. 116). An interpretivist researcher will at the end of the study try to develop theories to understand the nature of what has been studied by obtaining phenomenological insight (Collis & Hussey, 2014, p. 49). In the end, such theories will be highly subjective and affected by the researchers own set of beliefs (Snape & Spencer, 2003, p. 17).

The Harmonizer Program is built upon the very existence of the social actors in project, and how they work together for a common goal. It is developed to help the youth in the north of Uganda to reach their full potential and overcome their history of violence and war. To understand the full potential of ICT in connection to social capital development, the insights from the beneficiaries of the project is of great importance. It is therefore argued that interpretivism is the proper philosophical epistemological position. Interpretivism allows the research to understand meaning of each social actor’s actions and thereby see how ICT impacts their development of social capital.

3.2 RESEARCH APPROACH

By determining the philosophical position, researches are able to determine a proper research approach. For this thesis, the chosen positions are subjectivism in regards to ontology, and interpretivism as the epistemological position. The research approach describes the relation between theory and research. Two research approaches have been established on the matter, deductive and inductive research. Deductive research concerns a study in which a conceptual and theoretical structure is developed, and later tested by empirical observations (Collis & Hussey, 2014, p. 7; Snape & Spencer, 2003, p. 23). The deductive research process is usually compromised to six steps: finding a theory, deducing a hypothesis, collecting data, interpreting findings, examining results, and revising or modifying the theory (Bryman & Bell, 2011, p. 11; Saunders et al., 2009, p.
The deductive research approach presumably boils down to one thing, testing a theory.

The inductive approach however basically confines to the opposite. The inductive approach concerns the development of a theory based on observations from empirical reality (Collis & Hussey, 2014, p. 7). Meaning that you comprise and build a theory after data have been collected (Saunders et al., 2009, p. 41). Snape & Spencer (2003, p. 14) express that theory is led by the observation and empirical findings as a conclusion of a research. Through an inductive research, you may gain an understanding of the meaning humans attach to events, and thereby get a direct view on how social actors interprets the social world (Saunders, 2009, p. 126-127). Hence, by using an inductive approach the aim is to get better knowledge and understanding of a certain phenomenon, from which you could later develop a theory about.

At times, researchers might have a hard time limiting themselves to being solely deductive or inductive. Action Research, or the Golden Bridge as it is also referred to, is the ‘mid-way’ approach which combines a deduction and induction (Carson, 2001, p. 154-156). Carson (2001, p. 156) explain the approach as being deducting in the development of the theoretical background and groundwork, while then performing the research in an inductive manner. Action research is best suited for qualitative research which aims to collect new data to build theories upon, but which is grounded in previous research (Carson, 2001, p. 156).

Regarding this thesis, one could say the most suitable approach would be an inductive one, hence the aim with the research is to find a relation between concepts of ICT and social capital among the youth in northern Uganda. A relationship that will be examined through observations and interpretations of the interviewee's responses. However, in order to create a convenient interview guide with relevant themes and topics, the guide will be based on findings from the literature review. Making the most suitable research approach for this thesis a combined approach. As an action research lets the researcher to use theories that will later guide the following actions in the interview. The researcher can use theories to gain rich insight and understandings in the context, and then observe and interpret findings through, for example, interviews to create new theories (Carson, 2001, p. 156).

### 3.3 RESEARCH DESIGN

The research design is the general plan on how one will go about answering the research question (Saunders et al., 2009, 136). Collis & Hussey (2014, p. 4) identifies four different kinds of researches; exploratory, descriptive, explanatory and predictive. An exploratory research can be conducted into a research problem when there are very few or no earlier studies referable to use as information about the problem. The aim with an exploratory study is to find patterns and ideas and focus on gaining insights and similarities with the subject area for a deeper investigation at a later stage. A descriptive research is used to describe phenomena as they exist, identifying and obtaining information on the characteristics of a specific problem. This kind of research goes further into examining a problem, then an exploratory does (Collis & Hussey, 2014, p. 4). An explanatory research, or analytical as some say, is a continuation of a descriptive research. Aiming to understand a phenomenon by discovering and measuring casual relations among them. If someone were to conduct a predictive research one would have to conduct a research, which goes beyond the explanatory research. Explanatory research forecasts the likelihood of similar situations occurring elsewhere, whilst predictive establishes an
explanation for what is happening in a specific situation. The aim with a predictive research provides ‘how’, ‘why’, and ‘where’ answers to events (Collis & Hussey, 2014, p. 5)

In accordance with the research problem, an exploratory research will be conducted. Hence, the aim is to conduct a case study, by interviewing and observing people within a real-life context (Collis & Hussey, 2014, p. 4:68)

After deciding upon what kind of research one will conduct, there are two possible strategies to choose between, quantitative and qualitative (Collis & Hussey, 2014, p. 5). A quantitative study can be defined as quantifying a problem or research question, and later establishing the mechanisms through which one or more variables may affect each other (MacIntosh R & O’Gorman, 2015, p. 155) This method is preferred if the researcher wants to collect quantitative data, and analyse it by using statistical methods. Quantitative studies are often related to deductive, positivistic studies (Collis & Hussey, 2014, p. 52: Saunders et al., 2009, p. 125). There are however no rules, qualitative studies may also use these philosophical assumptions (Saunders et al., 2009, p. 125). A qualitative method is preferred by people conducting a study involving collecting qualitative data and analysing that new data using interpretive methods (Collis & Hussey, 2014, p. 7). Denzin and Lincoln (2000, cited in Ritchie & Lewis, 2003, p. 5) define qualitative research as situated activities that locate the observer in the world. Consisting sets of interpretive and material practices that make the world visible. Qualitative researchers study people, objects, things in their natural setting, and then attempting to make sense, or to interpret situations in terms of the meaning people bring to them.

As addressed earlier in this chapter, the method that will be applied for this thesis is a qualitative one. Hence, as explained, this research will be written with a subjective ontological position and an interpretivist epistemological position. Continuing from the choice of strategy, decisions on what type of methodology to use should be made.

Methodologies associated with the positivistic paradigm are experimental studies, surveys, cross-sectional studies, and longitudinal studies. Experimental studies concern investigations of the relationship between variables. Surveys are used to collect primary and secondary data from a sample, with a view to generalize the result to a population. A cross-sectional study is used to investigate a group of subjects or certain variables in different contexts over the same period of time. Lastly, a longitudinal study is conducted when investigating variables or a group of subjects over a long period of time (Collis & Hussey, 2014, p. 60-64)

In regard to interpretivism methodologies one can use are: Hermeneutics, ethnography, participative inquiry, action research, grounded theory, feminist, gender and ethnicity studies and case studies (Collis & Hussey, 2014, p. 60). Hermeneutics is a methodology that focus on understanding and interpreting text in the context of underlying historical and social factors. Ethnography is a methodology derived from anthropology, the study of people, their societies and their customs. In such a study will the researcher use shared and acquired knowledge to understand the observed patterns the researcher has found of human activity. A methodology that involves letting the participants engage and involve themselves as much as possible in the research is called participative inquiry. Action research is adapted in research where the aim is to find an effective way of bringing about a conscious change in partly controlled setting. Grounded theory is a framework where one can find a joint collection, coding and analysis of data by continuously conducting a systematic set of procedures in order to develop an inductively derived theory. In order to understand phenomena from a feminist perspective, a feminist methodology is used for
Gender studies focuses on the experiences of both genders, whilst ethnicity studies focus on the experiences different ethnicity groups might be situated in, in society (Collis & Hussey, 2014, p. 64-71).

For the purpose of this thesis, a case study will be conducted. This methodology is used to observe and explore a single phenomenon in its natural habitat using a variety of methods in order to gain in-depth knowledge (Collis & Hussey, 2014, p. 68). A case study is often used when the researcher wishes to gain rich understanding of the context and process being enacted. The data collection techniques adopted may vary and are likely used in different combinations. These techniques may be interviews, observation, documentary analysis, and in some cases questionnaires (Saunders et al., 2009, p. 146-147). There are four different types of case studies, descriptive, which refer to the objective being restricted to describing current practice. The second type is illustrative, where the study attempts to present an illustrative and, in some cases, innovative practices adopted by particular companies. The third type is called experimental, where the researcher examines the difficulties and issues one might come about when implementing new procedures and techniques in an organization, and then evaluate the found benefits. Lastly, there is the explanatory case study, where existing theories are employed to understand and possible explain what is happening (Collis & Hussey, 2014, p. 68).

The research design adopted for this thesis will be to conduct an exploratory research. With the use of interviews and observations of people in northern Uganda, the aim is to be able to answer the research question and fulfil the purpose. Like earlier mentioned, this thesis will be conducted through a qualitative method, and as for the methodology a case study is the most suitable approach.

### 3.4 LITERATURE SEARCH & SOURCE OF CRITICISM

The search for literature begins at the very same moment the researchers have their first thoughts of a potential subject for their study and will continue until the very last page is finalized (Collis & Hussey, 2014, p. 76). Collis & Hussey (2014, p. 76) define the literature search as the systematic process of identifying the already existing body of knowledge in a specific field of study, where the word ‘literature’ includes all published secondary information available. It is important to plan the literature search in advance as it is a complex and time-consuming process (Saunders et al., 2009, p. 75). The process of finding significant sources of knowledge is just as relevant for the outcome of the research as the research itself (Webster & Watson, 2002, p. xiii).

By committing to a using qualitative research strategy for this research, Flick (2009, p. 57) argues that the very nature of the study is to discover and explore new fields and areas of social science. The literature search has for this reason been of great importance as it enables the creation of a theoretical framework for the purpose of the thesis; to investigate the relationship between ICT and social capital amongst the youth in rural Uganda. By critically reviewing the existing body of knowledge and choosing appropriate sources of information, great understanding for the specifics and complexity of both information and communication technology and social capital by themselves were obtained, but also their individual role as drivers for economic growth and their relation to each other.

The search began by identifying a set of keywords; *Information and Communication Technology, ICT, Social Capital, Sustainable Development, Economic Performance, Youth, Developing Economy, Uganda, Ericsson, WPDI,* which were used to pinpoint major contributions for the different variables included in the thesis. The wish was to get
as many proficient articles as possible for the review. Several different data bases for peer reviewed articles, such as **EBSCO, EconBiz, Emerald Insight** and **SAGE Publications**, was therefore used. In order to gain broader understanding for the project, the search included finding as diverse articles as possible. The articles in this thesis represent different views of the variables used in this thesis, as well as different outcomes from the research. Retrieving as much information as possible regarding the subject will enable a greater analysis and discussion (Flick, 2009, p. 62).

Furthermore, the decision was made was to think carefully before including secondary references in the thesis, as they could be less reliable. Therefore by, as suggested by Webster and Watson (2002, p. xvi), continuously reviewing the reference lists of the most theoretical articles, a great understanding for what lay as a basis for previous research was developed. All secondary references have been carefully reviewed and are only included if there was no access the original source and if it was found that the authors who cited the work were reliable enough. As an inductive research approach is being used, it is of great importance the literature of which the theoretical framework is built upon is reliable since this will be part of the development of the interview guide.

Since the topic of the research is rather current, it was decided to focus the literature search for sources no older than 20 years when possible. It was also decided to exclude all sources that were not written in English, this to minimize the risk of information being lost in translation or misperceived.

### 3.5 CHOICE OF THEORIES

This thesis is an inductive qualitative research based on observations and information gathered through interviews from a sample of the youth in northern Uganda connected to the Harmonizer Program. Like mentioned earlier an inductive research approach is not based on previous theories, but rather used to build and develop a theory. Therefore, the interviews conducted will be used to gain better understanding about ICT and social capital from the interviewee’s perspective. These perspectives will then later be used to gain better understanding about the chosen topic, which could later be used to conduct a theory.

However, in order to conduct relevant interviews, an interview guide based on knowledge from the theoretical framework will be used. The reasoning for this is to build the interview on themes and questions relevant to the research. Making sure every question is admissible to the research and can be used for the interpretation of the interviews. The themes in the interview guide are therefore based on the knowledge gathered from previous research.

Referring back to the theoretical framework there were some contradictive results when it comes to the relation between ICT and economic growth. However, most of the researches conducted on the subject have found a positive relation between the two. A lot of this relation is built on the access of ICT (Koutroumpis, 2009). When one has access to ICT, the efficiency in one life is increased (Ponelis & Holmner, 2015, p. 3). Okon (2015) also argues for the importance on how the technology is being used and how this can be of great importance for the economic performance. The importance of access to ICT and the knowledge about how it should be used will therefore be one of the perspectives for this thesis.

Often explained in studies concerning social capital, is that the concept can be measured and researched upon based on three categories; trust, networks and norms. Hence this
research aims to gain more knowledge about social capital and its relation to ICT, these three measurements are of great importance. Putnam et al., (1993), Boldea (2012) & Whiteley (2000) among others found trust to be one of the main drivers for social capital. Demonstrating that trust is needed in order for participants to receive and conduct social capital. Social networks can have great effects on social capital, as a network can generate greater benefits by sympathizing with one another (Robison et al., 2002, p. 19). Norms have also, as explained, been showed to impact social capital. The norms and informal rules with a community can enhance the trust and cooperation, which can later be transformed into social capital (Maru et al., 2007, p. 183).

These three measurements have been found to affect social capital, but are also found in relation social capital and economic growth. Trust, norms and social networks are found to be drivers that can enhance economic performance (Putnam et al., 1993, p. 170-185), and will be used as some of the basis for the interview guide. Internet has proven to have an effect on the social interactions between people, whether it is in chat rooms or on various social media platforms, online interactions can create social capital. However, it could also create a negative spiral where people lose their offline presence, ending up isolating themselves from the outside world.

By gathering the knowledge and conducting a thorough research on the different key words used for this thesis, a deeper understanding of the relationship between ICT, social capital, and economic growth were gained. With greater knowledge on the different components the interview guide was created, based on themes found in the theoretical framework.
4. PRACTICAL METHOD

This chapter contains a thorough description on how this research have been conducted, and the process of collecting empirical data. Explanations is given to how the participants have been selected, how the interview guide is determined and how the interviews are conducted. Further the chosen method for data analysis is presented, following with the ethical considerations taken into account during the study.

4.1 QUALITATIVE DATA COLLECTION METHOD

For a qualitative study, researchers should focus on finding primary data through interviews or observations with the subjects of the study (Collis & Hussey, 2014, p. 130; Saunders et al., 2009, p. 288, p. 318; Flick, 2009, p. 150). The technique chosen for a specific study should be justified by the research purpose and question. If the researchers chose the wrong practical research method, the objectives of the study will be difficult to achieve (Saunders et al., 2009, p. 318).

There are different techniques of carrying out interviews for qualitative research, including; in-depth or unstructured interviews, semi-structured interviews, and structured interviews (Saunders et al., 2009, p. 320). Structured interviews are characterized by researchers using the same questions for all interviewees with no deviations (Bryman & Bell, 2011, p. 202). This method is usually associated with the usage of surveys and the collection of quantitative data.

When using semi-structured and unstructured interviews in a study, the interviewer has certain topics and questions which will be discussed during the interviews. These does however not have to be the same for each participant (Saunders et al., 2009, p. 320). The questions should be open-ended to allow the interviewee to provide longer answers. Probs are commonly used to continue on the path and get deeper and more personal answers (Collis & Hussey, 2014, p. 135; Flick, 2009, p. 156). When using this technique, the researcher believes the subject of the interview to have a complex stock of knowledge which can be of great use for the study (Flick, 2009, p. 156). While a semi-structured interview often has a few pre-determined questions, the unstructured interview relies only on topics and issues which the interviewee is allowed to talk freely about (Bryman & Bell, 2011, p. 205; Saunders et al., 2009, p. 321).

The purpose of this thesis is to study how ICT can impact social capital and thereby possibly impact the economic performance in rural Uganda. It is an exploratory case study, meaning it aims to understand and observe a previously unknown setting. To be able to answer the research question of this thesis, it is therefore believed that a semi-structured interview will be the most beneficial technique to use. This interviewing technique will allow the subjects to speak freely about the specific themes and topics given by the interviewer. The respondents are divided into three categories; beneficiaries, employees/trainers at WPDI, and employees at Ericsson AB Uganda. With a semi-structured interview guide, the questions can be adjusted to fit each person and result in a greater foundation for analysis.

A structured interview would not give enough room for personal interpretation of the questions from the subjects. Nor would it allow for different questions depending on the position or role the subject has in the study.
4.2 QUALITATIVE SAMPLING METHODS

Researchers should start with defining a sampling frame, that is, a record of the whole population which is under study. From there, one can draw a sample using different methods (Collis & Hussey, 2011, p 131). It is often impractical or impossible to survey or interview an entire population for a study (Saunders et al., 2009, p. 212). Researchers must therefore find a suitable sample which they can perform their study on. For convenience, several different methods have been developed to let the researcher’s identity their sample population in an efficient way, as can be seen in the figure 2 below.

**Figure 2. Sampling Techniques**

*Source: Saunders et al., (2009, p 213)*

Probability sampling is commonly used for surveys and quantitative research. The sampling method is based on the theory of random sampling were all individuals of a population has the equal chance of being chosen for the study (Saunders et al., 2009, p. 213). The overall goal of such a method is to minimize sampling error (Bryman & Bell, 2011, p. 176) and increase credibility of the study.

Using a non-probability sampling method on the contrary, some individuals of the population will have a greater, or smaller, chance of being selected for the study (Bryman & Bell, 2011, p. 176). As it is not a fair representation of the population, such methods should be avoided for research using statistical analysis. The results may be skewed depending on who participated in the study (Saunders et al., 2009, p. 213).

When performing qualitative research, there are many issues that may occur in association with the sampling method. The sample is often chosen out of convenience or opportunity and may therefore not reflect the whole truth or population (Bryman & Bell, 2011, p. 489). Since qualitative research often relies on interviews with in-depth answers, based on the individual’s own knowledge of the area, it is important for the researchers to choose their subjects with great care. It is of no one’s interest to hold interviews in which
the participant lacks proficient knowledge in the field (Bryman & Bell, 2011, p. 489). This is a limitation which researcher should be open about in their works.

There are several ways to choose a sample under the non-probability method. Saunders et al., (2009, p. 236) compares five sample types; quota, purposive, snowball, self-selection, and convenience. Each type has their own specific characteristics and purposes, quota sample is most commonly used for large populations and aims to create an accurate representation of the population in terms of demographics (Bryman & Bell, 2011, p. 192; Saunders et al., 2009, p. 236). Purposive sampling enables the researcher to choose the sample based on how they best qualify to fulfil the purpose of the study (Bryman & Bell, 2011, p. 192; Saunders et al., 2009, p. 236).

Furthermore, Snowball sampling is used when it is difficult to identify the members of the population under study and is relying on that the few known cases will introduce the researchers to more individuals (Bryman & Bell, 2011, p. 193; Saunders et al., 2009, p. 240). Self-selection sampling is when individuals of the population reach out themselves wanting to participate in the study (Saunders et al., 2009, p. 241), and convenience sampling means choosing the individuals from the population who are the most available and easiest to obtain (Saunders et al., 2009, p. 241; Bryman & Bell, 2011, p. 442).

For the purpose of this study, it is believed that a purposive sampling method will be the most efficient one to use. Through the use of this method, it will be ensured that the interviewees will have enough knowledge in the field of the study to answer the questions in a meaningful way. Although it might not generate a completely accurate representation of the whole population, it is believed that this technique will lead to the most proficient discussion.

### 4.3 SELECTION OF PARTICIPANTS

As described in the previous section, this research is based on a non-probability purposive sampling technique. This means that the participants of the study were selected based on their knowledge in the field of study. As the purpose of this thesis is to explore the relationship between ICT, social capital and economic performance from an NGO project offering free ICT courses in rural Uganda, it was important for the quality of the thesis, to interview individuals with extensive knowledge and experience in the field. It was also important that all subjects of the study were able to express themselves in using the English language without any restrictions, this to retrieve more in-depth answers without the need of a translator. It was also a requirement that the respondents were available during the three-day period when all interviews were held. Discussions with the program coordinator lead to the decision of WPDI chosen the appropriate participants, which were to be a mix of employees and beneficiaries, as well as genders.

By approving WPDI to choose their own participants for the study, it was also accepted that the answers might be somewhat skewed from reality. It was expected that WPDI would choose participants who they have a positive relationship with and who would therefore answer the questions in their favour. To minimize this limitation, it was decided to not send them too much information about the project in advance.

The Harmonizer Program is set on two locations in the northern region of Uganda, namely Gulu and Bweyale. It was therefore decided to hold interviews at both locations in order to get a broader view of the impacts of the program. Six interviews were to be held in Gulu and four interviews were to be held in Bweyale.

Before conducting the interviews with the employees and beneficiaries at WPDI, it was decided to hold two pilot interviews in Kampala with the country manager and the Site
Security Manager at Ericsson AB Uganda. These interviews were unstructured and aimed to test if the concepts and theories found in the field of study were applicable in the setting. The two pilot interviews then helped with the development of the interview guide for the remaining ten interviews.

4.4 INTERVIEW GUIDE

An interview guide should help the researcher to conduct interviews. In a semi-structured interview, researchers can use a list of questions on specific topics and themes to be covered. The interview questions may not follow the exact outline, questions that are not included in the guide may be asked as the interviewer picks up on other topics expressed by the interviewees (Bryman & Bell, 2011, p. 467). The term interview guide can be used to refer to a list of memory prompts of areas to be covered during the interview.

In order to create an interview guide, one need to make sure all the questions are relevant, and that the formulation and outline is adaptable to the research topic. In the preparations before the interview, it is important to formulate questions or topics in a way that will help answer the research question, but without making the questions to specific or leading. One also need make sure the language used is comprehensible to the interviewees (Bryman & Bell, 2011, p. 475). The process of formulating the questions for an interview guide needs to be thorough. In Figure 3 we present Bryman & Bell’s (2011, p. 477) way to formulate questions for an interview guide. This process is meticulous and every question that will finally end up in the guide is relevant to the research.

![Figure 3. Formulating questions for an interview guide](source: Bryman & Bell (2011, p. 477))

When building the interview guide for this thesis, a set of themes or topics has to be determined. These themes are based on the theoretical framework and are then transformed into a list of questions. The questions and themes are related to the research question and purpose, as well as what was found in the literature review. Furthermore, in order to ensure the themes found in the literature search could be adapted to the research, the first interview conducted was based on open topics. With the help of that interview and the theoretical framework, the interview guide was set to cover these specific themes;
4.5 CONDUCTING THE INTERVIEWS

Like previously mentioned in the section 4.3, the participants in this research are employees and beneficiaries at WPDI, and employees at Ericsson AB Uganda. Because of the rural locations the majority of the participants came from, a decision was made to travel to Uganda and conduct the interviews there. All interviews were conducted face to face with the interviewees at their local site. During the interviews, the interviewees were asked question by one, whilst the other one made sure to take notes and add question should they occur. Meaning the work was split by the two interviewers. The reasoning behind this was that it meant the two interviewers were both present during the interviews and was aware of the whole discussion taking place. This also ensure the both have the knowledge about each interview and have greater understanding of the results, rather than one having all the information and knowledge of the empirical data.

There are both advantages and disadvantages by conducting interviews in person. Face-to-face interviews are often more expensive and the process before the actual meeting take longer time to administer. Interviews in person can also alter evidence; the interviewer could with body language or just by presence affect the participant’s answers or the direction of the interview. However, some also argue that interviews done over the telephone removes the interviewer's ability to engage in observation (Bryman & Bell, 2011, p. 208). Furthermore, for this thesis it was unsure whether the participants had access to good service or even just the devices needed for a long-distance interview. Studies show that interviews conducted in person have a longer time-span (2014, cited in Bryman & Bell, 2011, p. 207), and some studies also suggest that the quality of data in face-to-face interviews is exterior than to does made over the telephone (Bryman & Bell, 2011, p. 209).

In 1996, Kvale (p. 148-149) presented ten criteria for a successful interview. These criteria were helpful tools to consider approaching the interviews. Knowledgeable is the first criterion, concerning the importance of the interviewer being thoroughly familiar with the subject and the interviewee. In order to make sure one has proper knowledge about the topic, pilot interviews can be useful. Hence, the reasoning for conducting pilot interviews at Ericsson AB Uganda before interviewing are participants in Gulu and Bweyale. The second criterion is structuring; focusing on the structure of the interview, rounds it off, and also making sure the participants are able to ask question they might have. Clear is the third criterion, emphasizing on asking simple, easy and short questions. Furthermore, the fourth criterion is gentle, this regards the significance of letting the interviewee answering the question in their own speed, giving them time to think, and tolerating their need of pauses. Sensitive, the fifth criterion, says the interviewer should attentively listens to what is said and how it is said, making sure one is empathetic. The sixth criterion is open, the interviewer should respond to matters important to the
interviewee and be flexible and adapt the interviewee’s answers. **Steering**, the seventh criterion, relating to the interviewer knowing what one wants to find out, and therefore guide the interviewee in that direction. It is also important to be **critical**, in terms of the participant’s answers, the eight criteria. An interviewer should feel confident to challenge what is said, the interviewee might be inconsistence with his or hers replies and should therefore be questioned about it. **Remembering** is the second to last criterion, focusing on interviewer's ability to connect replies to what has previously been said. Kvale’s last criterion is **interpreting**, the interviewer should be able to clarify and extend meaning of interviewees’ statements, but without interfering with the meaning of them. Besides these ten criteria’s, Bryman & Bell adds **balanced**; the interviewer should not talk too much, nor too little. It is important to make sure the interviewer is not passive by talking over them, whilst at the same time not being too quiet leaving the respondent to believe that their answers are not following the right lines. Bryman & Bell also emphasize that an interviewer should be **ethically sensitive**, ensuring the interviewee appreciates what the research is about, and also making sure they know that their answers will be treated confidentially.

During the interviews these criteria was always considered. Firstly, making sure the interview took place in an environment where the respondents felt secure. Together with the participants, tables and chairs were set up in a location of their choosing. In Gulu this was in the shadow outside the centre's offices, and in Bweyale it was in one of the staff's offices. Every interview started off with an explanation of the purpose of the study, and later an introduction of ourselves as researchers. The respondents were also thanked for taking their time to be part of the research. In doing so the participant was properly informed, and showed a willingness to be as transparent as possible. After presenting the research and background, the structure of the interview was introduced, and main topics from the interview guide was mentioned. Before starting off with the question we made sure to ask if the participant was comfortable with audio recording the interview, other ethical considerations such as anonymity and confidentiality were also raised. The interview then continued with general questions about the interviewee: name, age, occupation. The general questions were then followed by the questions from the interview guide and its main topics.

Throughout the interviews, it was important to ensure the questions were asked in a simple and clear matter, avoiding leading questions and complex terms from theories. Important to remember in this scenario is that everyone involved spoke English as a second language. Therefore, it was crucial to, during the interviews, ensure that the participants felt comfortable to ask for further explanations and definitions on certain words or topics. By using a semi-structured interview approach, the possibility of follow-up questions was enabled if needed, this in order to generate as much knowledge as possible. Further, probes, which are used when to extend the answers and get more information from the interviews (Saunders et al., 2009, p. 324). After the question were asked from the interview guide, the respondents had the possibility to ask questions or fill in gaps they felt were missing.

### 4.6 TRANSCRIPTION

When performing a qualitative study, it is common that the researcher’s audio-record their interviews, this enables the researchers to minimize the risk om misinterpretation as they will be able to go through not just what the interviewees said, but also how they said it afterwards (Bryman & Bell, 2011, p. 482). Other advantages listed by Saunders et al.,
(2009, p. 342) associated with audio-recording is being able listed to the interviews multiple times and use direct quotes in the thesis. Audio-recording will also make the process of transcribing the material easier for the researchers (Bryman & Bell, 2011, p. 483).

Although being very time-consuming, transcription of the interviews is needed for analysis (Bryman & Bell, 2011, p. 483). It is therefore important to be realistic when deciding on how many interviews that will be held for the study. As a researcher, you must either be able to transcribe the interviews yourself or hire a professional for it (Bryman & Bell, 2011, p. 483). This is commonly known as one of the major disadvantages of qualitative research (Saunders et al., 2009, p. 342). One other disadvantage is the possibility of the participants to refuse audio-recording (Saunders et al., 2009, p. 342). For most interviews, this will not be the case, but when it does happen, it is important to still perform the interview while trying to be more careful with keeping notes. The interview might still discover important and interesting knowledge (Bryman & Bell, 2011, p. 482).

For this reason, before starting the audio-recorder, all participants were asked if they were okay with their interview being recorded. At the same time, the respondents were also asked if they preferred being anonymous or if they were okay with their names being used in the thesis. Giving the participants the option of anonymity is important to ensure the quality of the answers.

4.7 QUALITATIVE DATA ANALYSIS

Bryman & Bell (2011, p. 571) raises the issues connected to the amount of data qualitative research often generates. Interview transcripts, field notes, and other documents collected for the study can make for a troublesome and a time-consuming analysis (Bryman & Bell, 2011, p. 571; Collis & Hussey, 2014, p. 154). Often, the material will be rich of content but hard to grasp efficiently as the common thread can be difficult to disclose (Bryman & Bell, 2011, p. 571). There are precautions that could be considered prior the data collection phase, including limiting the number of interviews held (Collis & Hussey, 2014, p. 155). There are only few widely established rules of how qualitative data analysis should be carried out (Robson, 2011, p. 466), which often leads to confusion among new qualitative researcher. There are however some guidelines which can be used to ease the process.

One of the more common qualitative data analysis methods if referred to as thematic analysis or synthesizing (Bryman & Bell, 2011, p. 571; Collis & Hussey, 2014, p. 155; Saunders et al., 2009, p. 491). This method is built upon the creation of different themes and concepts which the data is categorized under. The new themes and concepts should then be used for further exploration and possibly development of theories (Collis & Hussey, 2014, p. 155; Saunders et al., 2009, p. 491). The themes and concepts, also called codes, will make analysis easier as it decreases the amount of data (Bryman & Bell, 2011, p. 572; Collis & Hussey, 2014, p. 155).

The process of analysing qualitative data differs between deductive and inductive studies. For a deductive study, the researcher already had existing theories when formulating the research question and purpose at the very start. Such theories come of help when organizing the data analysis. The retrieved data will merge with the existing body on knowledge in the field and help make analysis more efficient. It is however important to not limit the analysis to fit in with the existing knowledge, as this could create bias.
In short, analysing data for a deductive study is more likely to rely on the previous knowledge in the area.

For an inductive study, the analysis will by nature be more exploratory as there is no or little previous knowledge in the field. In this type of study, it is common to continuously analyse the data as it is collected to develop a conceptual framework which will guide the research (Saunders et al., 2009, p. 490). This strategy is called ‘grounded theory’ and was first published in 1967 by Anselm Strauss and Barney Glaser and has two main features, namely; the development of theory out of the data collected, and that the collection and analysis of data is performed simultaneously (Bryman & Bell, 2011, p. 576). Grounded theory is the most used framework for qualitative data analysis in social studies and is commonly broken down in to four components;

*Theoretical Sampling* is the ongoing process of collecting data in the purpose of generating a theory, the data is simultaneously analysed and coded by the researcher so that she can decide which data she will collect next as well as where she can find it. The theory will therefore be continuously developed as new data appears (Bryman & Bell, 2011, p. 443). For theoretical sampling to be efficient, the researchers should maintain a wide perspective and collect and record data as it is provided.

*Coding* is the action of determining certain themes and concepts which the data will be broken down into. This is one of the most central parts of grounded theory as it helps organize the data and create a greater understanding for the relationships and concepts which is being researched. It is however important to note that coding of qualitative data is different from the coding of quantitative data as it is an important tool for the creation of a theory rather than just a way of handling data (Bryman & Bell, 2011, p. 578).

*Theoretical Saturation* means that the researcher should keep gathering data until there is no more relevant knowledge in the field to be found. By this time, the theory should be well grounded in the collected data and the relationship among the categories should be distinct (Strauss & Corbin, 1998, p. 212). Further, Strauss and Corbin argue that theoretical saturation is of significant importance as the developed theory otherwise would be uneven and lack precision.

*Constant Comparison* is significant for grounded theory as it is built upon, as mentioned, the close and continuous relationship between collection of data and the analysis of it. A constant comparison of the data will help maintain the connection between data and conceptualization. Further, this aspect of grounded theory argues the need for constant attention by the researcher for all codes and categories as they may emerge (Bryman & Bell, 2011, p. 577).

There are, of course, other strategies which could be used to analyse data for a qualitative study. It is however believed that the grounded theory will be the most efficient strategy to use for the purpose of this study as it will allow continuously adjustments of the research due to new discoveries and thoughts. Due to limitations, all criteria of the strategy will however not be fulfilled. The research will for one not be able to saturate the subject of study due to monetary and time limitations, and due to the fact that this is a degree project with limited resources.

### 4.8 ETHICAL CONSIDERATIONS

Being aware of the ethical implications of a study is of great importance, although many researchers tend to forget about this aspect in the early stages of their research (Saunders et al., 2009, p. 168). History has taught us that the neglect ethics can lead to horrifying
outcomes, experiments during the Nazi era in Europe being one of the more notable examples (Flick, 2009, p. 36).

Ethical considerations should include a code of conduct to guide the research and researcher through all stages. The code of ethics is supposed to act as a regulator between the researcher or researchers and the subject of their study (Flick, 2009, p. 36). There are several established codes of ethics available for researchers, all of which includes regulations of informed consent, treatment of participant, and beneficence of the study (Flick, 2009, p. 37).

This study conducted as an action research, and it has therefore been important to gain the participants trust through the interviews as the result relies solely on their personal experiences with the Harmonizer Program. For this reason, it was crucial to disclose the purpose of the research in such a way that the subjects of the study would understand why the research is important to perform. The hope was that such a clarification would increase the participants’ willingness to answer the questions truthfully. This follows the basic principles of the Ethical Guidelines developed by Social Research Association, SRA (2003), which will be followed through this thesis. The core of the SRAs ethical guidelines has been divided into four categories, all of which has been followed through the work of this research; Obligations to Society, Obligations to Funders and Employers, Obligations to Colleagues, and Obligations to Subjects (SRA, 2003, p. 13-14).

4.8.1 CONSEQUENCES

To meet all the obligations to the subjects of the study, great care needs to be taken with the research design. The researchers should keep the participants best interest in mind at all times and not inflict any harm on them. Intrusive and too personal questions is best avoided to keep a professional relationship (Saunders et al., 2009, p. 193). Much research is of a sensitive nature, one might want to study how victim of war perceived their captivity. Such a study could inflict psychological stress and anxiety on the participant as it is a sensitive topic to talk about. However, it might still be a necessary study to perform to in the future be able to better help other victims. The consequences of such a study needs to be carefully disclosed to the intended participants (Flick, 2009, p. 41).

For this study, no psychological or physical harm is believed to be present for the participants. Instead, the focus of the consequences for this study has been on disclosing how the gathered data from the interviews will be stored and used (Kvale, 1996, p. 116).

4.8.2 INFORMED CONSENT

When performing qualitative research, it is important that the subjects who are under study have given their informed consent. Informed consent, in this sense, means that the participant has been given all the information available about the research as well as all information regarding their participation rights (Saunders et al., 2009, p. 190). In short, the subject should be giving their informed consent voluntarily, have adequate information to make their own decision as well as be competent to make such a decision (Flick, 2009, p. 41).

Since the participants were selected by WPDI themselves, an informational letter containing information about the research were sent to the contact person in advance, who then forwarded it to the selected participants. The letter entailed details about the chosen subject and the purpose of the study, as well as other important information necessary for the participants to make up their decision. It was also clarified how the information given
by the participants would be used and the approximate time needed for an interview. Some of the key concepts of the research were also presented and explained in order to decrease the time needed for such an explanation during the interview (Appendix 3). At the time of the interview, the interviewees were once again asked to give their informed consent to participate in the research.

4.8.3 CONFIDENTIALITY
Confidentiality and anonymity can become problematic in qualitative research. While confidentiality ensures that the information provided cannot be traced back to the individual or organization providing it, anonymity is the assurance of not displaying the individuals or organizations name in the final report (Collis & Hussey, 2014, p. 33).

When studying a number of individuals in a limited setting, confidentiality is needed both in an internal and external context (Flick, 2009, p. 42). The analysis must be written in such a way that other people cannot understand who the subject is, the person should be unrecognizable to others, but still entail enough sufficient information to make for a profound discussion (Flick, 2009, p. 42). Ensuring anonymity and confidentiality can be a helpful tool in gaining access to participants for the purposed research. Once given, such a promise should not under any circumstances be broken. This is especially important in the terms of names, addresses and personal information (Saunders et al., 2009, p. 194; Flick, 2009, p. 42). Confidentiality and anonymity can become a severe ethical dilemma in some cases as it can come in conflict for the researchers when sensitive information is discovered (Collis & Hussey, 2014, p. 33). This could for example be information about illegal activities among employees or a child’s mental instability.

For this research, the meaning of anonymity was explained, and the option was given to all participants. However, none of the participants saw this as a necessity. It was however agreed upon with the program coordinator from WPDI to not include any personal information in the thesis except their names, ages and relation to the Harmonizer Program. No contact information to the respondents is therefore neither collected during the interviews nor used in this thesis.
5. EMPIRICAL RESULTS

This chapter will start by introducing the subjects of the research and their relation to the Harmonizer Program. Continuing with disclosure of the empirical findings of each of the themes discussed with the participants during the research.

All interviews were held in person with the participants, as it is believed to increase the trust between interviewer and interviewee. The participants were selected upon request by WPDI based on their knowledge and relation to the Harmonizer Program and ICT. All respondents were Ugandan residents living in Kampala, Gulu, or Bweyale.

After holding the interviews, the records were transcribed and coded. New codes that had previously not been looked into emerged as the interviews were processed. From the two pilot interviews, ICT, Social Capital, and Economic Performance was determined as the three main themes, while from the in-depth interviews Community Development, General ICT Access, Age Access, Gender Access, and Networks arose as important drivers. Out of these new codes, community development was the only one which is considered important and extensive enough to be thought of as an individual theme. As for the other codes, they were too related to other concepts to stand alone.

5.1 INTERVIEWEE DESCRIPTION

5.1.1 DONALD WAIGUMBULIZI
Donald Waigumbulizi is the country manager for Ericsson AB Uganda and served as the initial contact person in Uganda for the research. He has long history of working with information and communication technology and services, as well as an MBA from Edinburgh Business School. After years of working internationally for MTN and Ericsson AB Uganda, Donald has gained a strong macro-perspective on business and its impact on society. Two interviews were held with Donald, one initial interview on Skype and one at the Ericsson AB Uganda office in Kampala, Uganda.

5.1.2 CONSTANTINE AMULEN
Constantine is the Site Security Manager for Ericsson AB Uganda in Uganda and Rwanda and has been working for Ericsson AB Uganda since 2008. In 2012, he began volunteering for WPDI and the Harmonizer Program by giving ICT training to the trainers at the sites in northern Uganda. Constantine has a strong background in ICT with a bachelor’s in information technology and a Telecommunications Engineering Certificate. Due to his tight connection to WPDI, Constantine was the middle-hand in the initial stages of determining dates for the in-depth interviews. Constantine’s knowledge about the program and ICT and local perspective were of great importance when determining the main themes for the interview guide.

5.1.3 JOSEPH LUKWAGO
Joseph Lukwago is the ICT Coordinator at WPDI’s site in Gulu, Uganda, and has been since 2014. He has been working full-time with the organization since 2012 and started as a Trainer of Trainees in ICT. He’s role at WPDI includes oversee the tactical structure
of the program as well as reaching out to the youth. Joseph has a strong background in IT, after finishing his advanced studies in software engineering and web applications, he has been worked as a Technical Support Specialist and Network Administrator for several companies in Uganda. He also has a great understanding for the local area and the need of the Harmonizer Program.

5.1.4 OLANYA DUEREL
Olanya started out as a beneficiary of the Harmonizer Program in Gulu in 2016. Today, he is working as a teacher, training other young adults in the field of ICT. He’s knowledge as both a beneficiary and a worker in the organization is invaluable to this research as he can provide a broad perspective to the themes under study.

5.1.5 IRENE LUTWALA
Irene is a teacher at WPDI for one of the sub communities in the Gulu District. She has come a long way since being abducted by the Lord’s Resistance Army (LRA) and kept as a child solider. Today, she has good knowledge in the usage of ICT and is now grateful for being able to help others in her region as she sees the opportunities the technology brings with it. She has, herself, studied and been mentored at WPDI for one year prior to working for the organization and therefore, just like Olanya, invaluable knowledge of the program.

5.1.6 TONY NUME OKELLO
Tony is one of the beneficiaries of the Harmonizer Program in Gulu and had, at the time of the interview, been part of WPDI for close to 2 months. Tony learnt about the Harmonizer Program through a friend from university and decided to join the program as he was not fully attached to his former employer. He recognized the opportunity the more practical courses provided by WPDI could bring and though it would complement his university studies in language and communication.

5.1.7 KEVIN MAYELE
Kevin is one of the beneficiaries who finished his basic training in ICT during the summer of 2018 in Gulu. He had felt the urge for learning more about ICT previously but had not been able to afford the expensive course offered by other organizations. When his friend told him about WPDI and their offer, he felt motivated to go and learn as much as he could. Kevin had no previous knowledge in the field and his experiences from the program is therefore of great importance to this thesis.

5.1.8 ENDRIKO BOSCO
Endriko was first introduced to the Harmonizer Program in in Gulu in 2018, when he also begun his training. After finishing his basic training in ICT, he continued with intermediate and advanced courses in photography and editing, website design, as well as other online application courses.
5.1.9 ELIAS ORYEM
Elias has been part of WPDI for three years, both in Gulu and in Bweyale. He started as a beneficiary for the Harmonizer Program and then decided to volunteer for organization. At the time, Joseph was the only ICT tutor at the Gulu site, and Elias recognized the need for help. After 8 months of volunteering without pay, he officially joined WPDI and earned his payroll as a tutor and technician.

In 2017, Elias was offered the position to become the site manager for the Bweyale site, which he happily accepted.

5.1.10 RAJAB SAID
Rajab has been living in the Kiryandongo Refugee settlement in Bweyale since escaping the civic war in South Sudan. He spent his days sitting around, doing nothing until his friend told him about WPDI. He was not able to go back to school after leaving South Sudan, but the courses offered by WPDI could still help him create a future for himself. He joined the program, and after a year of studies, he begun working for the organization as a tutor in peace building. Coming from a troubled past and being a natural leader has helped him bring the people at the refugee settlement together, although coming from different cultures and tribes.

5.1.11 EMMANUEL RMEDA
Emmanuel is the Sexual Reproductive Health Officer in Bweyale since May 2018. His main tasks include helping the youth stay safe and healthy by offering counselling in sexual health, parenting and education, among others. Although Emmanuel has not undertaken any ICT courses himself, he knows how to use it and sees the benefits from using ICT for the purpose of his health program.

5.1.12 LUCY KICONCO
Lucy started working for WPDI in 2017 and is based on the Bweyale site. She is a youth mobilizer for peace and her job includes finding movies within in field of conflict resolution and leadership, which she then shows to the community. After each screening, the group discuss the movie and what they can take with them from it. She has not undergone any courses at WPDI but has proficient knowledge in how to use ICT in her daily life.
### 5.1.2 FURTHER INTERVIEW INFORMATION

#### Table 1. Interview and Interviewee Information

<table>
<thead>
<tr>
<th>Name</th>
<th>Age</th>
<th>Date &amp; Location</th>
<th>Position</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Donald Waigumbuliz i</td>
<td>N/A</td>
<td>March 13, 2019. Kampala, Uganda</td>
<td>Country Manager Ericsson AB Uganda</td>
<td>38:01</td>
</tr>
<tr>
<td>Constantine Amulen</td>
<td>N/A</td>
<td>March 13, 2019. Kampala, Uganda</td>
<td>Site Security Manager Ericsson AB Uganda</td>
<td>36:14</td>
</tr>
<tr>
<td>Olanya Duerel</td>
<td>28</td>
<td>March 25, 2019. Gulu, Uganda</td>
<td>Trainer of Trainees</td>
<td>46:00</td>
</tr>
<tr>
<td>Irene Lutwala</td>
<td>N/A</td>
<td>March 26, 2019. Gulu, Uganda</td>
<td>Trainer of Trainees</td>
<td>38:12</td>
</tr>
<tr>
<td>Tony Nume Okello</td>
<td>32</td>
<td>March 26, 2019. Gulu, Uganda</td>
<td>Beneficiary</td>
<td>1:14:17</td>
</tr>
<tr>
<td>Kevin Mayele</td>
<td>24</td>
<td>March 26, 2019. Gulu, Uganda</td>
<td>Beneficiary</td>
<td>31:52</td>
</tr>
<tr>
<td>Endriko Bosco</td>
<td>25</td>
<td>March 26, 2019. Gulu, Uganda</td>
<td>Beneficiary</td>
<td>28:49</td>
</tr>
<tr>
<td>Elias Oryem</td>
<td>28</td>
<td>March 27, 2019. Bweyale, Uganda</td>
<td>ICT teacher, Site Manager</td>
<td>44:47</td>
</tr>
<tr>
<td>Emmanuel Rmeda</td>
<td>35</td>
<td>March 27, 2019. Bweyale, Uganda</td>
<td>Sexual Reproductive Health Officer</td>
<td>30:21</td>
</tr>
<tr>
<td>Lucy Kiconco</td>
<td>26</td>
<td>March 27, 2019. Bweyale, Uganda</td>
<td>Youth Mobilizer</td>
<td>23:37</td>
</tr>
</tbody>
</table>
5.2 INFORMATION & COMMUNICATION TECHNOLOGY AS A DRIVER FOR CHANGE

“ICT has taken over the world” (Joseph L.).
“ICT has to be everywhere” (Elias O).
“ICT is in fact the mother of everything” (Rajab S.).
“It is becoming part of life. We can't do without it, honestly” (Emmanuel R.).

It is an indisputable fact that ICT has come and interrupted the way of life as it used to be known. Not only is this a recognized fact in the developed world, but as the quotes above indicates, this is also true in the third world.

However, when discussing the topic of ICT with the respondents, it was evident that the common people lacked proficient skills in the usage of such technology. Many factors seemed to have an impact on this technological illiteracy, one of the main ones being lack of financial resources and availability. Joseph L explains there is a lack of “know how… schools don’t have full time access in training the population”. Although many in the society, especially the youth, could see the potentials in learning how to use basic ICT, the cost for such education is usually high and the quality poor. A 6-months course in an IT-related topic can cost as much as 1000USD, and Joseph L finds it difficult to “imagine somebody barely earning a salary” ever being able to afford such education. For those few who can afford university education in ICT, it is often money not well spent. Universities overpopulate their classes and according to Olanya D., who studied IT at a university prior to entering the Harmonizer Program, "often the equipment was not enough. They did not have enough computers or all the students, so sometimes you had to lay back and just watch”. As a result, many students got to sit in the back, just watching and trying to keep up. Further, Olanya D., explains how he “did not enjoy ICT sessions because, it is like I have gone back to primary school. All the years I have put in and invested, does not count”. Not being able to participate in the classes means a loss in knowledge, as most people in northern Uganda only sees “owning a computer in itself is a luxury” (Tony N. O). This makes practice outside of the classroom near to impossible, and in such cases, the money spent on the ICT-course is just a loss of time and money.

It is however not always the lack of tangible technology and devices that is the problem. Although Joseph L continues by describing the infrastructure as strong in the northern region of Uganda, the Ugandan government sees the lack of connectivity a problematic factor for development (Donald W). Irene L. confirms this as “people could be in villages where the network is not there and... [it is] really hard for them to get wi-fi connection within their settings”. The government constantly strives to solve these limitations to connect even the most rural villages to the national and global market. Government funding is however limited, so instead, they have issued licenses which allows a telecommunication and broadband operators to enter the Ugandan market. Donald W explains how, as part for the license as a national operator, they are required to fulfil certain criteria. Before, the operators should “within a certain period of time you should have covered maybe 99% of the country with voice connectivity”. Donald continues by explaining how “Last year the government came out with the broadband fund, national broadband strategy. In there that are now guidelines on coverage by 3G services”. Such initiatives are great for several reasons, it does not only connect more areas in the country to the market, but it also brings more customers to the operators. The strategy could therefore be seen as an opportunity for both parties.
Moreover, other factors play vital roles in terms of access to ICT. When the network and the devices are available, access is a matter of age and gender. While a few interviewees stated that, in Gulu “there is balance” (Olanya D), most recognized that access is skewed towards men. Talking about such inequalities, Tony N. O, states “If you were to tell me to get on average how many ladies, even those who are going to school, how many of them own, or have access on a day to day basis to a computer, I think it wouldn't take me more than 30 seconds to give you a good number. I can assure that within the entire district where the population is well over 500’000, I don't think more than 100 hundred in the whole district, 100 ladies and girls have access, I'm talking about 100 over 500’000 people”. Lucy K believes “it stems from the culture background” that is deeply rooted in the societies, while Irene L., describes it as a matter of income. She continues by discussing the difficulties for women in the labour market. Women and young girls are expected to stay at home and take care of the household leading to them not earning an income nor having the ability to support themselves. “Except some women who do work on office where they access to Wi-Fi and they can support themselves, so they are getting bundles and all that stuff, they have the access. But for women who are just in the rural setting, sometimes it could not” (Irene L.).

Further, Tony N. O., continues “the gentlemen relatively have access to it, because why, because talking about the genders, our society is more of a piratical society, although there has been government intervention and feminist movement trying to bring up the culture and the women. The women, the ladies, don't really have that freedom of access to opportunities. They don't still have equal opportunity”. Accessing and using ICT, as Emmanuel R. states it, a matter of resources, “it's males who have resources. They own resources in the community”.

In terms of age, all interviewees agree that it is mostly the youth who has access. Endriko B. believes it is “because most of our parents fail to go to school and they see this kind of opportunity given to learn these things as a waste of time” while youth recognize the ICT training as an opportunity to enter the global market and labour force. Not only does the knowledge of how to efficiently use the technology increase the individual’s competitive advantage when applying for jobs, but it also enables them to apply for such jobs online. Joseph believes the ICT trainings “will better equip them [the youth] with skills for the job market”. Emmanuel R. recognize that “young people are able to use computers and the Internet to build their capacity and career, to access job opportunities”. Lucy K. sees ICT as a tool to mobilize the youth and help them not to be idle, which is a common problem in rural and poor villages. “More people come and they're able to go out there and get better jobs” (Lucy K.).

There are many advantages to accessing the global market, being able to search for information is a main one. Many interviewees recognize online research as an opportunity to learn more and to keep a critical mind-set. Olanya D. talks about how information retrieved he can help the elders in his society. He gives the example of health problems; were he can go online “then we compare with what their doctor said. Sometimes, you see whether it actually is like what the doctor is saying”. Olanya D. continues by noting the importance of not trusting all information available on neither the internet nor in books. Being critical and carefully choosing the sources is of essence. Rajab S., who is working for WPDI, continues on the same path, explaining how he does all the research himself before his classes in order to keep the information up to date and interesting. Rajab S. states that “ICT helped, me because now when I want to teach someone something, I want to tell someone something new. I have to go and research. Today, I don't teach what is in the book, I teach what I have researched”. 
5.3 SOCIAL CAPITAL IN NORTHERN UGANDA

Social capital, like previously mentioned, is a concept that has been hard to define or explain in just a few distinct words. Therefore, whilst discussing this matter with the participants were asked to clarify their perceptions on the concept, asking them to define the concept with their own words. Out of the twelve participants, three of them were able to answer this question without being provided with further information on the subject. Irene L. said “Social capital is basically, what I can say is that it’s all about our social relationships with one another or an institution because for somebody to relate well they most have a certain social capital with working with one another. So that in return you will get other connections as well”. Further in the interview whilst asked to define the concept again, she said: “actually the social capital or what I know is how people do relate with one another and in terms of our behaviour, our attitudes.”, continuing “Because there is a way that you might be lacking something but how you approach someone might say a lot. So, if you have that skills of relating to people socially it creates changes for you to get access to certain thing that you would not be able to get. Other people reach financially but they lack the social capital, because all there believes, all their trust is on deposits. But not how they can relate to other people so that they see their way of living in harmony.” Tony N. O. stated that social capital is created between people who share vibrant ideas, ideas that will enable the parties to both benefit from the interaction. Also explaining that the people with whom you share pleasant with are few, and that people usually put oneself first, that people are a bit selfish, pointing out that even community leaders have those tendencies: “You don’t have so many well-meaning people... where they only care for themselves, there are even people, even the political leaders, even the community leaders, most of them look at themselves first and then possibly others.” However, he did finish his notions about social capital saying that by placing yourself with the right people, people that “I can put my brain together with and energize, look at how our emotional growth, social growth and economic growth, means of livelihood and possibly improve on our social network and social capital”. Endriko B. simply explained social capital like this, “its free for the society you know, like my way of being like maybe the friendship between you and me, you know, what I have I can teach you it, and what you have you can teach me. Now that is all social, that capital you know, social.”

Hence social capital is a complex subject, and people have different perceptions of the matter, most of the interviewees wanted further information. In an informational letter (Appendix 3) sent out to the participants, the definition of social capital used for this research was presented, and that was also the definition read out if the interviewees wanted further information. Once the participants received that information, the rest of them were able to give their own definition of social capital. After receiving further information about social capital Olanya D. said: “social capital, is actually, how me and the knowledge that I have within me, the skill that I have within me, and how I can share it with a friend and actually try to help the community benefit from my knowledge. And sharing it, trying at least to look at how you can input it into someone’s life. So that actually the movement come, as a result of that relationship between me and the people who is around me”. Joseph L. and Rajab S. also touched upon the power of sharing skills and knowledge with others. How the sharing of one once skills and knowledge can create personal development in others, enabling them to create positive changes and generate collective benefits. Rajab S. stated that, “the best thing I have learned here is how to transfer information that I have someone else to benefit from it. Like teaching, you know I learned how to give somebody the knowledge to become a better person”.

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Skills and knowledge were also brought up by Endiko B, where he told a story about how his skills within the subject of bricks created opportunities for the youth in his society to generate income. Explaining a project where he and a contact in the US developed a type of house-brick that was easy and cheap to build, a brick that the youth could create for a cheap cost and sell for a higher sum. Likewise, Olanya D. recognized this, mentioning that through his teaching and training with the youth his trainees were able to get employed because of what he has taught them. After receiving the definition of social capital Emmanuel R. stated that social capital can produce income. That through information shared between others, social capital can generate income, “physical income” for the interactive parties.

Elias O., Kevin M., and Lucy K. mentioned how teamwork and working towards the same goals generates social capital. That a group’s collective effort can create opportunities for everyone within that group and positive changes for the society surrounding them. Elias O. said, “It brings me back to like teamwork, to like teamwork like, and we all have the same goal, and whatever you’ll do will impact on the society positively”. Kevin M. mentioned that when communities interact and work together, they are more able to talk about issues and difficulties with one another without it being hostile. That communication and community commitment enables the community members to create positive changes together, changes that might not have been possible without the collective actions that generate change. Lucy K., said that through institutions or help groups, were people with vulnerabilities go to get help, and where the importance of people working together is key, one can find social capital. Capital that is found when it is “not just for our benefit but for the people out there. Collective efforts.”

5.4 COMMUNITY DEVELOPMENT

Community development is derived from more than just the collective acts and financial progress. According to Olanya D., there community development is built upon three pillars; personal development, community development, and sustainable development. He explains personal development as the individual’s journey with evolving and training certain skills which can lead to job opportunities, as well as the act of learning how to teach these skills to others. “Personal development leads to community development. One single person get knowledge, get a good job and is able to put up a structure in the community. He is able to come and gather the community because he has a voice, because he knows this, he can succeed and go and guide the youth in his community” (Olanya D.). He continues “I am trying to create a mindset in the community that we have to come up together and work so that we can build our community to be a better place. So, you realize the personal development is now pushing the community to community development and then community development can in return push to sustainable development”. If not everyone in the community is working together towards the same goal, the development created from a few will not stick. For a community to successfully go through positive development and stay in the new state, all the individuals in the community should work together. Only then, will there be a sustainable community development. “It is just this personal development, that can lead to community development, and sustainable development and that can affect even the whole world” (Olanya D.).

A common trend through the interviews is the view of the job market. All subjects of the study believe that knowledge and access to information and communications technology is a driver for the job market. A community needs to move from self-employment in the agricultural sector in order to develop, which the youth recognize. Joseph L. describes the
youth as naïve, which is why they need proper training in ICT, business and entrepreneurship.

Joseph L. continues by discussing how the youth in this region are vulnerable and needs consistent encouragement. Because such a large portion of the Ugandan citizens are in the ‘youth category’, this has led to many of them being unemployed without proper education. There are not enough jobs available in the country at established companies and “the government is not able to employ all of them” (Tony N. O.). Early unemployment can lead to the feeling of standing outside the community, leaving adolescents and young adults to feel hopeless and disappointed with society. Joseph L. believes that “inclusiveness is important, the skills in the capital should be equally delivered here” and not exclusively available for people in the urban areas. As the government strives towards equality Joseph L. sees WPDI as a middle-hand, “we will bridge, and in the future, we see a population of everybody being able to fit in and contributing in the development for the country”.

To this, Elias adds the need for conflict resolution among the youth in northern Uganda. The region has a troubled history and many of the inhabitants are refugees from South Sudan. Tribes who has been in conflict for decades are now living together in a foreign country. Rajab S. explains how this used to be a problem in Bweyale before the WPDI program launched in the village. Rajab S. continues “when the program came, peace education has been taught through everything. Through ICT, every part the program has some peace education. So, we went to the communities and we talked, we told them: whether you are a Nuer or a Dinka or what, we are all human beings. We need to respect each other, because in the eyes of God, we are all people. There is no need for us to hate each other. Maybe that person who hated the other person is wrong, but we have nothing, so we have to do that. Teaching from the kids, to the youth, to the elders. Now people have understood everything”. Rajab S. who is specialized in conflict resolution at WPDI, has seen the positive effect the program has had on the community. Saying, the youth, the future of the world, “they had really given up, but now, the community, the program has come. Giving people knowledge to go back to school”.

Further, Irene L. discuss the importance of not only “relying on physical things” since the relations between the members in your village and their collective acts are just as important. Tangible assets can always be taken away, but knowledge and collectiveness will always remain. Irene L. explains that if there is no sense of ownership for a project, it will at most times fail. Adding ownership to it will increase the chances of success as it bring another level of commitment and investment to it. She therefore believes it is important to create a sense of pride amongst the people in a community in order to succeed with businesses and other projects.

Elias O., who has been working at the WPDI Bweyale settlement from the very start, has seen a lot of challenges through the years. He explains how WPDI, in the beginning, where met with reluctance. “The attitude in the community we live in [Bweyale] was bad in the first place. They were like, ‘I hope this organization is not like the others’. Because the others come and go, when they come and try a pilot, it doesn't work out, they pack and go. We also had a pilot for three years; we have managed to do a great job. So the impact out there, at least we have done what other organizations couldn’t achieve in the shortest time we have been here” (Elias O.). Elias further continues by explaining, compared to all the organizations “the services we give out are so unique, we have organizations that only do education, and they stop there, we have organizations that
only gives out food. But it’s like, for us we come and do education, we do sports, we do almost everything. The education is just a bit of it, we even give out scholarships”

5.5 INFORMATION & COMMUNICATION TECHNOLOGY IN RURAL SOCIETIES

When Donald W., the country manager at Ericsson AB Uganda, is asked to explain the concept of social capital, he says “for there to be social capital there must be a community, and the community must interact”. Donald W. explains the two concepts, ‘social capital’ and ‘interaction’ to be dependent “to the extent that when you’re make it easy for the community to interact, you enhance social capital. So, what ICT does, especially with the provision of mobility and connectivity or even broadband, is that you make it possible for the society to communicate, whether it be from an economic perspective or even from a day to day basis”. Communities have been interacting with each other, but there is a reported positive “effect of changing it to digital, which is the amount that the ICT enablement. Then you can see, you can see what the social capital that comes out of that” (Donald W.). Going digital will cut the time for a message to be delivered and enable faster access to information. Regarding social capital and ICT, a lot of the respondents agreed that ICT has really had a positive effect on social capital. Technological platform will even broaden the scope of the social capital that can be created from two individuals, as they “are able to interact with people in different countries” (Constantine A.).

All participants agreed to an increase of the size of their social network as a result from implementation of ICT into their lives. Many discussed how ICT helps not only their social network, but also their professional network. When asked how ICT can help him in the future, Olanya D answered: “I think it is going to help me a lot. Because, first of all I plan to start some small project. I plan to do some farming, and if I explain it to somebody farming, I see them think, what is the relationships? Most people do not understand, but I know that through ICT, I can get to the market and then I will be able to advertise online, I will be able to reach even others, get connection to the buyers and retailers, even I can get connections outside and sell locally what I am producing here. Like even to the US. That will be possible only through the usage of ICT. That is specific to what I plan to do with my life, I want with my family”.

Discussing the same topic, Endriko B. explains how he “got some friends out, and not I am able to talk to them” as a result of information and communication technology. Irene L. on the other hand, sees more than just the benefits for her network in private term, but also the benefits for the WPDI project. “Looking at the scope of this project, it takes place in Mexico, South Sudan, and other parts of the world. But it would be so hard for us to know what is happening at other places in this project” if it were not for ICT. But now “you are able to see: oh, today they are doing this in Mexico, they are training, or today in South Sudan they do community activity for something, something local in the community. So, in that aspect you find us widen the forward connection, and everything stands in the taste of time”. She further explains how the different locations of the Harmonizer Program communicate with each other to share ideas and experiences, all to over time improve the program and meet the new needs from society.

Joseph L. explains how the youth, by just having the ability to share ideas and thoughts online, as well as search for new information, the societies are able to develop in a faster
pace. ICT and the feeling of inclusiveness is giving the youth the tools needed to generate "a great positive change" (Joseph L.).

Further, the development of ICT is also impacting the concept of social capital. Most communities in Uganda is today covered with voice connectivity (Donald W.), meaning people with mobile telephones has the ability to make and receive phone calls. Purchasing airtime is, however, expensive in Uganda compared to buying mobile data. Endriko states that "if I buy a bundle for 500 Ugandan Shilling, which worth for something like 20-25 MBs, I can talk on WhatsApp, I can call someone, rather unlike when I buy airtime for 500 [Ugandan Shilling] I can talk to only two people". He continues "I even video call, whereby I’ll be seeing someone. So, it has improved on my social networking seriously". In other words, mobile data and the internet, as well as the knowledge of how to use it, enables the people in Uganda to communicate more cost effectively.

Tony N. O. states that "ICT has really gone in a long way in reenergizing my network", explaining the huge impact ICT has had on his own social network. He sees ICT as a tool for inspiration as it is a source to information and ideas. Kevin M. further explains how just one person's knowledge of ICT can help a whole community, but also how it gives authority. Knowing your way around a computer means you, although young, will be asked to act as secretary during council meetings in your village, a meeting you would otherwise not have been allowed to attend. Kevin continues "when you have some sort of education you are considered for it". But also, as many of the interviews mention, help their surroundings to find and apply for jobs online. Without access to the internet, it is, at most times, difficult to find information about new job openings. Irene L. brings up this topic when asked how her knowledge in ICT can contribute to her society; she tells a story of how she helped her sister; "some few weeks ago, I prepared her a CV, she applied for a job here at one of the hotels in Gulu here, she got called for that interview, and she got a job". Many of the interviewees tells similar stories throughout their interviews of how they have helped people in their surroundings to prepare a CV and apply for jobs online, or to search for information regarding different problems they have in their lives.

5.5 ECONOMIC PERFORMANCE IN A RURAL SOCIETY

When asked about the relationship between economic performance and ICT, Donald W. discuss the macro- and micro economic perspective of the concept, both from the Ugandan viewpoint and from Ericsson’s viewpoint: “We will do the calculation that Ericsson uses. It's an old theory, they think that you have a five percent increase for every percentage penetration of ICT. There's a direct linkage. I do not know how they do the calculation, but the number is. So, if you're specifically looking to tie, economic development defined as the GDP parameter to ICT, then every percentage point increase in ICT penetration results in five percent increase in GDP. I don't know whether or not that has got a specific limit in the existing level of GDP” (Donald W.). He then continues “I would say, maybe you need to look at it two ways. First as a general expectation. Then you have got the millennium development goals, which have been directly mapped to economic development in different ways. What Ericsson has done, at a global level, is taking those Millennium Development Goals and translated them into an ICT component. At that level you can be able to see how ICT participates in the fulfilment of this Millennium Development Goals as well as contribution to economic development.”. He further discusses the importance of knowing the economic challenges that are present in the region which is being studied. “What economic challenges are there? Is it, for
instance, access to finance, access to money? ... If you look up at your point, it should be able to give you a global picture. They won't give you statistics, but it'll give you a specific ICT intervention, but it contributes to specific socioeconomic problem”.

Addressing economic growth at the individual level as a result from learning ICT, Donald continue: “[if] you break it down, make it a bit micro, and then you look at the specific things that are affecting these particular individuals if you want to measure it to an individual level. Certainly, especially in the Ugandan context, if you're talking about sustainability, then you're going to run into something called mobile commerce, which has been a big change, a game changer. Fast for financial inclusion. How much financial inclusion you need to enable GDP growth, how much social inclusion do you need to enable GDP growth? I think there are about 4 million bank accounts in the country approximately sixteen million wallets. Those numbers have to be verified. 16 million wallets, if I can remember correctly. The people have got access to financial services through mobile commerce is maybe three times the number of people has it through a traditional bank account”. Allowing the citizens to access financial services through their mobile phone operator has raised the financial inclusion significantly. Individuals in rural areas are now able to pay for their goods and services, taxes and apply for a loan through their phone.

Constantine A. then continues by looking at the economic benefits from ICT penetration as the increase of goods and services. The Harmonizer Program gives the youth access to the global market. Being able to generate a positive economic growth steams from capacity building of the youth. To enable the future generations to reach their full potential, it is important to not only target the youth themselves, but also their former generations. Due to the long war, there are many single mothers with children who she is not able to support fully. Female empowerment is therefore on of WPDI’s top priorities apart from the youth. By offering grants to women so they can start up their own income generating businesses, they will be able to support their families and keep their children in school. Elias O. tells a story of three mothers who received funding: “they come back here and they tell us ‘we are making a lot money, and even recruit some of the fellow trainees to work’. One opened up a sewing business, to sew African clothes. She bought many sewing machines and she had to train some of the youth from here, and now they are working together. And at the end of the day, goes home smiling”. WPDI also offers business classes and ICT classes specifically for women, all in the name of empowerment.

Further, apart from financial inclusion through ICT, the technology also brings potential knowledge with it. Irene L. explains how she in the past “used to spend a lot of money” without any thoughts of it. Through the courses in ICT and business, she has learnt how to keep books in excel, which is something she has implemented in her everyday life as well. Irene L continues “Because I didn’t have any basic reason why I should keep the money. But now, since I have an idea that I need to start a business sometime, I have started to save some little money. I used not to value opening up accounts in banks and you know. But after being initiated to this training I realized the value of saving”. Olanya D., Tony N. O., Kevin M., and Endriko B., all confirm this new desire and ability to save money, all because they want to start up their own business one day. Tony N. O. argues “If you are able to combine the ICT training and the business training, and go and open up a small business and manage it well, economically it would have empowered the families and then the people around, and then eventually the bigger society”. Irene L. then adds, “when we talk of the economy, I look at the aspect of business too, because most of us when we first joined, we didn't know how important business is in today's
development. But now we realize that we have the great ideas but we still lack that confidence of putting our ideas into action”.

In general, the theme of economic performance was the most difficult to discuss with the respondents in Gulu and Bweyale. Many of the respondents had a hard time understanding the meaning of ‘economy’ and ‘finance’, as well as having it in the context of ‘private’ or ‘personal’. The question within this topic therefore had to be explained in many variations in order to the respondents to somewhat understand the questions.
6. ANALYSIS & DISCUSSION

In this chapter an analysis and discussion of the empirical findings will be presented. Based on discoveries in the previous chapter five themes have been identified; ICT, social capital, community development, ICT and social capital, economic growth. The findings will be compared and analysed based on the theoretical framework introduced in earlier chapters. Following a discussion about the differences and similarities found.

6.1 INFORMATION & COMMUNICATION TECHNOLOGY

One of the major concerns introduced in empirical results is the lack of skills and knowledge in the area of ICT. When the technology is presented to a people it might be the first time they have ever come across this kind of technology, meaning they have to start from the very beginning. Starting with just the stroke on a keyboard or the saving of a file in a folder. This issue grows even larger when there is a lack of efficient equipment and the quantity is not nearly enough. Students having to attend IT classes without being able to actually use the devices needed for that class. If ICT is going to work as an efficient economic driver for the third world the knowledge and equipment needs to be available. The implementations of ICT centres in society is therefore usable for further exposure.

As proven in the empirical results, information and communication technology is a definitive part of our future, and that the technology has a positive effect on the development. What is also apparent is that the availability and access to ICT is not always a certainty. Like mentioned in earlier chapters studies have shown there is a prominent lack of access to these technologies in underdeveloped countries (International Communication Union, 2017), this absence is also confirmed by the participants in this research. As shown in findings the inadequacy in good infrastructure is one of the main reasoning for the lack of connectivity and availability to access to ICT. Pradhan et al., (2014, p. 93) and Koutroumpis (2009, p. 479) found that investments in ICT infrastructure are more likely to generate greater return than any other investments, a finding which it seems the Ugandan government have taken to heart. The implementations of broadband funds to promote higher connectivity could be great to further the development within the country. What is also evident is the impact a non-governmental organization like WPDI have on their surrounding communities. That their help to increase the knowledge in ICT and promote peace in previously violent neighbourhoods have had a great effect on development in Uganda’s northern regions.

ICT is used as a powerful tool to promote and empower equality in demographic groups, especially in its role to decrease the inequality gap between the genders (SIDA, 2015). In the result you will find that people are split and cannot agree on whether or not there are still inequalities in between the genders in regards to ICT. This could be because people are unaware of its presence or that norms are actually changing in the society. Inequalities between the gender's stems from cultural rules, and even though there are signs that the inequality gap is closing, these rules have been the way of life for a long time. Were the women are supposed to take care of the household, create meals in the kitchen and make sure the house is tidy and the men have the freedom to do what they want. However, when women are able to learn about ICT and gain the same knowledge as men, their knowledge is just as usable, claiming higher independence in society and hopefully decreasing the inequality gap.
Further, the research looked into the use of ICT as a matter of age. Evidently, the youth have been found to be the demographic age group that has the highest rate of access to ICT. This result could emanate partly from the knowledge in the area technology, the youth have grown up in a world with less violence then their elders and have had time to put more focus into understanding the development in technology. Whilst this might also be the effect of the difficulties in the labour market for the youth. With Uganda being one of the fastest growing populations (Central Intelligence Agency, 2019), the lack of employment is eminent for the youth. Therefore, having knowledge and a certificate in ICT could make you more attractive for employers.

Moreover, ICT can be used by people to gain further understanding in areas of their interest. Whether it is to gain increased knowledge in health issues, or promote their work, ICT is a great tool acquire further insight in the subject of the matter. ICT opens up the possibility for people to research for information from areas other than just their community. People are able gain deeper understanding areas by being able to search for information with technology that opens up a whole new world for them. A world where you are able to read about circumstances and happenings in regions and areas far from your starting point, a world where you are able to ask people for help without them being in your physical home-space. ICT opens up a possibility for exposure to information with no limits or boundaries.

6.2 SOCIAL CAPITAL

The wide range of the meaning of this concept has been well research and is addressed often in this research. Found in the theoretical framework are three components that stands out when discussing the matter, these components are; trust (Putnam, 1993; Boldea, 2012; Whiteley, 2000; Uslaner, 2002; Holm & Danielsson, 2005; Woolcock, 2001; Thompson, 2018), norms (Knowles, 2006; Kim & Kang, 2014; Maru, 2007; Engbers et al., 2016) and social networks (Knowles, 2006; Grootaert, 1999; La Porta et al., 1997; Engbers et al., 2016; Woolcock, 2001, cited in Knowles, 2006, p. 3; Uslaner, 2002; Knack & Keefer, 1997; Putnam et al., 1993) Now for this thesis, the participants were able to affect this previous knowledge and address the concept themselves. In findings, one can read these interpretations and see that the participants are not far out from what has been found in previous research. Contemplating that social capital stems from social relations with somebody, and how this relationship can create capital by working together. A relationship that is free to create, and is generated through the trust and friendship between people. Furthermore, social capital is created when you place yourself together with people you can count on. In a situation where both parties want to create a scenario where everyone gain some potential benefit from the interaction. It is however important to remember, that if one of the parties have interest in only creating a good environment for oneself, then the interaction will fail. Trust most go both ways, and if it is lacking the benefits from this certain interaction will decrease (Boldea, 2012, p. 240).

In addition, respondents find skills and knowledge as a big provider of social capital. By sharing knowledge with others, one can create a movement, a movement towards further understanding of a subject for more people, an enhancement in the community. Shared knowledge between parties can create relationships, and some even say the improvement of oneself. A shared taught from both previous literature and the empirical findings in this thesis, is that when people work towards making their community better, social capital arises. That when working towards a common goal, the society will see positive effects. Sharing knowledge and skills with others puts people in the same headspace, creating an
environment where people share the same expectations about an area where everyone expects the same outcome (Engbers et al., 2016, p. 551). In results, we learned about the two South Sudanese tribes Nuer and Dinka. The tribes have been in conflict with each other for decades, fighting over the right to a certain area of land, among other reasons. However, when a space was created for them where they had to interact and respect each other, they had to communicate and find common grounds. Created an environment where they could interact and find peace with one another. Like mention in the theoretical framework, once social norms include once attitude towards civic morals (Kim & Kang, 2014, p. 48), and so by being a part of the Harmonizer Program, these two tribes had to find peace. They had to create an environment where they could all be involved. Moreover, social networks have been found to generate social capital, and this research can only agree with that statement. WPDI have created a network where people can interact and create an environment where respect is mutual between participants. An area where people are nice to one another, where they are only as strong as their weakest link. WPDI works towards assuring that everyone is on the same wave length during their lectures, making sure everyone understands what is being taught and that no-one is left behind. They have created a program where the association between participants and workers is horizontal (Knowles, 2006, p. 2-3), a place where members can relate to each other on equal basis. WPDI have created a space where every participant has to rely on each other in order for beneficial trade to occur. WPDI provide the beneficiaries with knowledge in ICT, business and peace development, giving them knowledge to advance in the labour market. In return WPDI rely on the fact that participants will go out educate others, teach what they have been taught. However, without WPDI’s trust in its members this transaction would have never happened. A level of trust is needed for this transaction to be beneficial (Knowles, 2006; David Hume, n.d., cited in Putnam et al., 1993, p. 163). The social network created at the centres revolves around the trust and respect to each other and the belief in the mutual trust for everyone.

6.3 SUSTAINABLE COMMUNITY DEVELOPMENT

Community development is one of the themes that was derived when coding the transcripts from the interviews. It appears evident that the respondents of this study all believes the project they are being part of is a great driver for their community’s development. Olanya D., even manages to break down sustainable community development in to three phases when he describes how personal development leads to community development which in the end will result in sustainable development. Only when there is sustainable development, the community can affect the world.

Although not being part of the theoretical framework for this thesis in the beginning, all respondents kept returning to the subject of how collective efforts and acceptance can help the community to reach new heights. Community development is more than just the results of social capital and implementation of ICT in a limited setting, it is the basis of the whole future and a combination of all drivers available. Although the questions in the interviews all were within the field of ICT, Social Capital, and Economic Performance, the interviews did step out of these themes to discuss other drivers. Community development is the result of all these three themes working in harmony. Most of Africa is lagging far behind in terms of development, famines and extreme poverty of more common than in any other part of the world. Although Uganda, these days, is a relative stable country, the lack of proper infrastructure has deprived the country from accessing rest world. Today, the infrastructure is available in most parts of the country, but the
knowledge is not. Over the years, there has been many NGOs coming to different parts of Uganda with the purpose of helping the country develop. Elias O. explained that many organizations have been in Bweyale before WPDI, but most have left for different reasons. Educational programs have been carried out in order to help with community development, but what has been lacking in many of the cases is the sustainability aspect. One can help a community develop for a period of time, but if not adding sustainability to it, the project will fail at the end. As an example, an NGO can be giving out free food without commitments to everyone in a poor village for a period of time, and then they leave. After the period of free food, the people will go back to famish. The help given from the NGO is not sustainable and, in the end, there will be no development. And as explained by Olanya D., development needs to go through all three phases in order to set.

WPDI therefore aims to by different by teaching the people skills which can help them access the job market and support themselves. The program does give away free things, the only difference is that they are not tangible, instead they give knowledge. With the knowledge, comes the want for more, both from the community and from WPDI. This constant urge for improvement stems from wanting to meet the communities’ needs in all processes of development. For a sustainable development, it is important for organizations like WPDI to themselves keep up with the development and stop at what they were in the beginning.

Therefore, The Harmonizer Program is built to solve more issues than technological illiteracy. It is a peace building initiative to help solve the conflicts which have been around the regions for decades. By teaching people of all ages, the importance of accepting one another, the community is able to move past the point of reluctance. Conflicts which has been in the way of development and cooperation is now been thought of in past tense and it seems the youth can once again see a future for themselves where they are not victims of circumstances.

6.4 INFORMATION & COMMUNICATION TECHNOLOGY & SOCIAL CAPITAL

Proving a relationship between ICT and Social Capital has been the main reasoning to conduct this research. Seeing the impacts this relationship has on the youth in northern Uganda is the other one. Throughout this research, you will see how this relationship has been tested, observed and interpreted, and the findings have shown that ICT has had a big impact on northern Uganda’s youth. Previous research has shown that ICT is a positive driver for social capital and that the interactions made with ICT can increase communication both off and online (Wellman et al., 2001, p. 438). As explained in results, “for there to be social capital there must be a community” (Donald W.), and this is what ICT enables. ICT opens up the door to further communication between people, a place where the interaction does not have to be face to face for it to be substantial. A way to create relationships and trust with the help of devices and technology, it opens up the possibility for a new community.

Moreover, the relationships between the two concepts, social capital and ICT, often been found through the internet and social media networks (Wellman et al., 2001, p. 437-438), and this can also be recognized in the findings. The respondents recognize the fact that ICT has opened up a possibility for them to reach out to people beyond their physical space. ICT has proven to be a helpful tool to reach out to old friends, new friends, colleagues, people in power, people that could be of help, it has increase people's access
to information from others. Whether that information concerns important issues or checking how a friend is doing, ICT has opened up new way of getting that information. This has been found influential in the work WPDI is promoting, it has been a helpful tool to contact their colleagues in other regions, countries, cities, colleagues that could sit on information and vibrant ideas that the centres in Uganda should think on implementing. But it can also go the other way, the Ugandan offices might have found a more effective way to teach, or figured out new possibilities to decrease youth unemployment through their business classes. The participants in this research have identified ICT as being one of the most prominent and useful tools in their everyday lives, it has increased their networks in ways that would not have been possible had it not been for ICT. By increasing their networks, they recognize an increase in social capital. Tony N.O. said in his interview that there are people out there whom he has a hard time to trust in, people whom focuses mostly on themselves, and create transactions with people only for their own self-interest. ICT therefore opened up the opportunity for him to reach for connections beyond his physical limits, finding friends that share the same views and with whom he can share ideas with. ICT has helped Tony N.O, but also the other participants, to create new or increase their already existing networks. Social networks have proven to be a determinant for social capital, so therefore, by enhancing social networks through information and communication technology, you increase social capital.

The results also show ICT’s impact on the participant’s professional network. The respondents express how ICT has increased their attractiveness in employers’ eyes, stating that with increased knowledge in ICT job opportunities emerges. The certificate the participants receive after finished training is very valuable. The knowledge in ICT in Uganda is not something everyone have, it is luxury knowledge and the people that sustain that knowledge are needed in the work force. Even the most basic training could help a long way. Furthermore, skills and knowledge in ICT could be a way for people to enhance their own businesses, use ICT to complement an already existing business or to create a new one. ICT opens up for entrepreneurial activities and innovation, the implementation of new ideas in business. As read in theoretical framework, social capital and innovation, and entrepreneurship are greatly intertwined (Baliamoune-Lutz, 2011; Van Rijn et al., 2012). It is shown that social capital keeps a prominent role in innovative and entrepreneurial activities as it helps reduce uncertainties. Innovations, like the one Olanya D. presents is an example of these relations, with increased knowledge in ICT, he has looked into the opportunities of starting an agricultural business. This business would not have been possible had he not had trust in the knowledge received from WPDI, hence with the new knowledge learned at the centre he was able to look beyond the limits of the agricultural sector as it is today. He found a relation between his new knowledge in technology and his already existing skills in farming, opening up a business possibility. Innovations in any sector, but especially the agricultural sector, could have grand effects on Uganda’s development. The agricultural sector, being the biggest sector in the country (Uganda Bureau of Statistics, 2018), could greatly benefit form innovations, and so would the country’s economic growth and development (Van Rijn et al., 2012, p. 112).

Alongside with the participants individual business opportunities, most of them have found that their skills in ICT has had great effects on their surrounding community. They have found that their knowledge has been helpful for others. Expressing that by teaching others about information and communication technology, people have been able to opened up stores or score job opportunities. This development has been seen to go beyond just the respondents direct surrounding, reaching the surroundings of the people they help. Creating a chain of ICT knowledge being spread beyond one person’s network. A chain
that could be very beneficial for the communities in rural Uganda. Like previously mentioned in the theoretical framework, ICT is found to play a great role in societal development, enabling people to be a part of the current knowledge economy (Ponelis & Holmner, 2015, p. 3).

However, even though WPDI increase peoples’ knowledge in ICT, there is still a question about connectivity and access to the technology. Access to ICT is not a given in rural areas, and even though people might have the proper knowledge they have no place to practice it. In results we learned there is development in this matter, that even though people might not have access to all types of ICT, the access mobiles phones seems found all rural areas. Mobile telecommunication is especially used by the younger generation. Using mobile phones to have enable the Ugandan people to easier access to communication, being able to make and receive phone calls, use communication applications such as WhatsApp, and calling people using the video functions. Communication beyond the reach of once physical, can impact the social network between people. Enabling opportunities of communication with new contacts, or keeping in touch with previous acquaintance increasing once network, and potential retain social capital by communication.

6.5 ECONOMIC PERFORMANCE
As described in the empirical results, this was the most difficult theme to discuss with the respondents in Gulu and Bweyale. Most of the interviewees did not understand the concepts or questions asked, and a lot of time were spent explaining the meaning of ‘economy’ and ‘finance’. It was also apparent that many respondents could not see the individual perspective of such questions, but rather focused on the collective effects. Most of the interviewees agree that the ICT program had either already given them a payed job, or would after the program was finished. Either way, many of them still failed to see a connection to how this could generate an impact on their own economy or their community’s economy. This contradicts the previous research which has been made in the field, proving the connection between ICT availability and usage as a driver for economic growth (Bacache, Bourreau, & Gaudin, 2013; Bertschek et al., 2013; Bojnec & Ferto, 2012; Bouras, Giannaka, & Tsiatsos, 2009; Brewer et al., 2005; Crandall et al., 2007; Czernich et al., 2011; Dwivedi, Lal, & Williams, 2009; Gillett et al., 2006; Holt & Jamison, 2009; Koutroumpis, 2009, cited in Pradhan et al., 2014, p. 93; Lee et al., 2012; Jorgenson & Vu, 2014; Jayakar & Park, 2013). ICT is, according to the most previous studies, a promoter for growth both on a micro and a macro level, implying the results from the interviews should have been different. Also, as describes by Donald W., Ericsson use a measurement tool estimating there is a five percent increase in GDP to each one percent ICT penetration in the country.

Okon (2015) argues ICT should only be seen as a driver for economic growth in a developing country if it is used in the right way. Relating this to the Harmonizer Program and northern Uganda, the research does however not show any signs of ICT being used in the ‘wrong way’, as described by Okon. Theoretically, an increase in economic performance should therefore be perceived by the participants. The absence of such a perception could therefore be a result from the lack of proper schooling. The participants who did not understand the meaning of ‘economy’ or ‘finance’ lacked basic education, whereas the participants who could see a positive change in their economy either had been part of the program for a longer period of time, or had gone to university before becoming part of WPDI.
Just the fact that Mobile Banking has increased the financial inclusion with about four times, according to Donald, is alone evidence for ICT as a driver for economic performance. Mobile banking through the mobile operator is enabling people on the far country side to apply for loans and grants, which then can be used for investment purposes. It allows more people to access the market and will therefore increase the competitiveness, both within their local setting but also in the greater region and country.

Some interviewees explained how they, through the training at WPDI, had learnt the importance of keeping track of expenses. The business and entrepreneurship courses, which contained budgeting and book keeping among other subjects, has enabled them to change their personal spending’s and see the importance of setting a goal and saving money for the future. This is a particularly interesting aspect as it was declared they, before WPDI, had no understanding for the concept of saving money. This means there has been a raised awareness and long-term thinking, whereas before they did not see future access to finance as a tool for reaching a better living standard. To reduce poverty in developing nations, long-term thinking is one of the most important tools. Adjustments needs to be made to both the private and public economy in order to reach a stable growth.

Seeing that the Harmonizer Program is changing the way the beneficiaries are taking care of their finances should therefore be considered as a sign that the initiative is successful in more ways than just with their ICT education.

Moreover, the participants could see the linkage between the Harmonizer Program and their new skills within ICT and a better quality of life for the collective. Rather than seeing the private effects, many participants preferred to talk about how the society would benefit from their efforts and knowledge. This comes to little surprise due to the country’s low individualistic score in Hofstede’s Cultural Dimensions. Rather than seeing the economic perspective and outcome, the respondents saw the results from their training as a stepping stone for their community’s development and prospering. Tony N. O., confirms this with his statement regarding how the ICT and business training can enable one to open up a small business, which, if managed well, can empower the whole family or even the entire society. The total among of goods and services in a society is one of the most common ways of calculating GDP. An increase of such businesses would therefore lead to an increase of GDP, which in the long-term benefits the entire society.

6.6 SUMMARY OF ANALYSIS & DISCUSSION

The aim with this thesis is to address what impacts information and communication technology have on social capital amongst the younger population in rural villages in northern Uganda. The results from the in-depth interviews, the analysis and the discussion lead to the following:

ICT enables easier access to your social network, opening up possibilities to communicate with people outside of peoples’ physical sphere. ICT empower people with the technology to speak to people beyond borders, communicating with people in other regions, communities, countries et cetera. There are no limitations in distance in regards to communication. ICT enables people to share information and vibrant ideas amongst each other. Sharing information that could help people, or creating a stronger bond and relationships amongst them. Relationships where people are able find trust amongst one another, and where they can generate activities that could be beneficial for both parties. Trust and social networks are two big components of social capital, as found in the theoretical framework.
What was discovered in this research was the strong effect ICT has in regards to the empowerment of the younger generation. The lack of interest in ICT amongst the elder generation has created an opportunity for the youth to step in. The youth are able to provide knowledge the elders do not possess, empowering the youths position in society. ICT has also been found to decrease the inequality gap in between the genders, or have at least opened up the opportunity for that potential affect. There were split views in the matter of access of ICT in between the genders. However, there is some evidence showing that when women are given access to ICT, their skills in the technology is just as valuable as men’s. Decreasing the inequality gap otherwise found in the labour market. What one can conclude from this is that ICT provides people with the power to change the norms in society, affecting the social structure. This could lead to a potentially impact on social capital.

Continuing, the research has provided clarity to how ICT can have positive impacts on community development. Finding that when people have increased knowledge in ICT, they feel more included in society as their skills can generate positive development within their community. Furthermore, by sharing skills and knowledge with others, people are able to help one another. Empowering people with useful skills that they transfer to other members, creating a collective benefit. In addition to this, ICT is used all over the world, it is always transforming and developing, and access to it is crucial for global inclusion. Like mentioned earlier in the text, it opens up for opportunities beyond limits, empowering people with tools they can use everywhere. Access to ICT is therefore of great importance, hence it can provide entire communities to development in the long-run. Communities working together, individual knowledge shared and used, and societies evolving and developing at an increased speed are all signs of impacts ICT has on social capital.

This research has also shown that the impacts ICT has on social capital generates positive outcomes for both collective and individual economic performance. The trust people have in information and communication technology has increased their financial inclusion. The participants in this research also found that their knowledge in ICT enabled them to be more aware of their private economy. With new knowledge received from ICT training, some participants have used these skills to create innovative activities. Finding ways to enhance their already existing business or start up new initiatives. Knowledge in ICT has been proven to generate new ways of income, which can be used to empower whole families or entire communities. Innovation and entrepreneurial activities have also been found to be related to social capital. It is said that social capital enables trust and reduce uncertainties in networks, and in the creation new business initiatives those components are of great importance. These are factors that can make economic transactions more efficient, and further generate economic growth.
Like shown in the figure 4 below, and presented in text, ICT impacts social capital in several ways. Improving communication in social networks, empowering people with technology to create relationships, and possibly the change of highly rooted cultural norms. These impacts can together create a positive economic performance. Finding ways for economic growth in both communal and personal settings. What is found in this text is that these three concepts, ICT, Social Capital, and Economic Performance, can together generate efficient community development.

**Figure 4. Impacts ICT on social capital amongst the youth in rural villages in Uganda**
7. CONCLUSION

In this chapter the question that has guided this entire research, the research question, will be answered. The chapter will provide a general conclusion to the study, followed by the possible implications prevailed from the research. Continuing a limitations and future research possibilities are presented.

7.1 GENERAL CONCLUSION

The purpose of this thesis has been to explore the relationship between ICT and Social Capital among the youth in rural villages in Northern Uganda. To this, economic performance has been added as a result of the two variables working together. In order to fulfil the purpose, a qualitative research was conducted, and interviews were held in Uganda with 12 individuals connected to Whitaker Peace & Development Imitative and Ericsson AB Uganda. The two organizations were chosen due their collective efforts of educating and connecting northern Uganda with the domestic and global market. By performing a qualitative study at the scene of events, it was believed the interviewees would feel a greater trust to us as researchers, and thereby give more truthful answers. The aim was to get a diverse selection of participants, and through the help of their responses, answer the following research question:

*What impact does Information and Communication Technology (ICT) have on Social Capital among the youth in rural villages in northern Uganda?*

The interviews showed there is an evident relationship between ICT knowledge and personal as well as societal development. The interviewees could all see how their newly gained knowledge in the field of ICT could benefit both themselves and their surroundings. The importance of not solely relying on tangible assets, but making use us the intangible too has had a great impact on the individuals. By, to the extent possible, using grounded theory as the basis throughout the research process and analysis, expected themes were confirmed and new ones arose. The two pilot interviews held with staff from Ericsson AB Uganda, resulted in the three main themes of this thesis being confirmed, namely **ICT, Social Capital, and Economic Performance**. Out of these three themes, the literature review was revised and further research of the concepts were made. A new interview guide was then developed through the combined knowledge from the literature review and the pilot interviews. In the interview guide, the three themes were addressed through the perspective of the ‘youth’.

After holding the in-depth interviews with respondents from WPDI, the results were transcribed and coded. The coding resulted in more themes being discover; **Community Development, General ICT Access, Age Access, Gender Access, and Networks**.

Community development was first thought of as an underlying category to social capital and economic performance, but as further analysis was made, it was evident that the code was too important and significant to not be considered as an own theme. Although the theme is highly integrated in the other concepts, it stands alone as an important driver for change. The interviewees emphasized the importance of community development, not only as the result of economic growth, but as the result all factors related to change. For the interviewees, community development is more than economic growth. The other
codes that emerged from the in-depth interviews, were too dependent on other factors to be considered a theme alone. They were therefore integrated in the three themes which emerged from the pilot interviews. Community development is the result of ICT, Social Capital and a positive Economic Performance working together at the same time.

The first main theme, ICT, should be considered the driver for this thesis, as it is its implications on Social Capital among the youth that is being explored. The research showed that there is a strong relationship between ICT and Social Capital among the youth. Due to several reasons, the impact is however not believed to be as extensive for the elders. Lack of time and interest is believed to be the two main reasons behind their technological illiteracy. The respondents argue the elders do not have enough spare time to learn the usefulness of ICT, but rather needs to spend time providing for their families.

Further, the relationship between ICT access and its impacts on the social network was explored, were the social network is considered a component of Social Capital. The interviews showed that all participants had experienced a growth in their social network, both at a local and foreign level. The participants expressed their gratefulness to the growing social network as it enabled them to discuss business ideas and share experiences with their new acquaintances. Such sharing is then believed, by theory, to increase the knowledge for each individual and lead to an increase in social capital.

WPDI addresses the creation of development and creation of Social Capital from many directions. By creating a common ground for vulnerable people to interact and learn, they have managed to bring two rivalry tribes together and teach them to live by the same norms and values. A trust has been created among the beneficiaries, enabling the community to develop at a faster and more sustainable way. Social Capital can only be present when the individuals in a society trust each other and strive to reach the same goals.

Together, social networks, trust, and norms form the three fundamental pillars of social capital, enabling a rural community to develop and a faster pace without the same access for financial resources as developed market has. The economic structure for development is immensely important in rural areas typically disconnected from the outside world. By adding the ICT aspect to this, the development will pick up an even faster pace. ICT is without doubt one of the most important aspects to everyday business in today’s society. By depriving the poor from accessing it, they stand to chance to catch up with the rest of the world.

With ICT knowledge comes not just the ability for long-distance interaction, but also an increased competitiveness in the job market. It also allows local entrepreneurs to seek funding for external parties, and thereby bring employment opportunities to the community as well as new goods and services that was not present before.

This research aimed to see what impacts ICT has on social capital amongst the youth in rural Uganda. The impacts in this research have proven to have a positive effect on economic performance and the can lead to increased community development, as can be seen in Figure 3.

### 7.2 MANAGERIAL & SOCIETAL IMPLICATIONS

Throughout this research the aim has been to gain a deeper understanding of the impact’s ICT has on social capital for the younger population in rural areas in northern Uganda. The research has provided definitions and deep discussions about the concepts, and what
economic contributions arises as they are intertwined. Following text prevails the implications from this research.

As discussed in the analysis and the general conclusion, the impacts of ICT on one’s social network is extensive. Access to the technology enables people to keep in touch with friends and family in other cities, regions or even countries. Purchasing a data bundle to one’s phone will enable the person to not only search for talk with loved ones, but it also enables the person market oneself to potential employers. With access to ICT, people would be able put themselves into the discussion, place themselves in the employers minds easier. ICT and the access put people ahead of others with no access, creating a competitive advantage.

However, if people are to be able to communicate with family, friends and potential employers, focus needs to be put on enable access to connectivity. ICT will not be useful if the access to it is limited. Especially, as found in this thesis, is the lack of availability to ICT in rural areas. Areas where the infrastructure is further behind. We know form research that there are a lot of companies that establishes themselves in Africa, starting up CSI projects or NGO’s opening offices, and a lot of focus is put on healthcare, education and poverty. This thesis implies that ICT should be place in the same pot. ICT has shown to be efficient in regards to country development and innovation amongst people. The unemployment among the younger generation is high, and ICT education and access would enable the youth with more work opportunities. Hence, companies should consider putting focus on enhancing the infrastructure in developing countries, boost the connectivity in rural areas and continue to educate the society in ICT.

Recognizing that this research has been viewed from a societal perspective; the following text are implications that could applied in a business environment. This text could be used as recommendations for managers and executive personnel. Social capital and information and communication technology are confirmed to be useful tools in creating social networks. It is however important to remember that each step of the research process come with some level of uncertainty. Even though this research can confirm positive relations between social capital and ICT, there are still some implications that unexpected negative outcomes could occur. Hence, it is advised to companies to create an environment where trust and respects is of utmost importance, creating an environment where social capital can occur.

This research has shown the power that social capital has on a network and trustworthiness in relations between multiple parties. When social capital occurs, transactions between parties can generate collective benefits. This is something managers should consider, the creation of social capital comes with mutual respect and trust in all the concerning participants, at workplace this could be of great importance. Creating a network where people rely and support one another. It is also important to understand, that when there is lack of trust in a corporation it often tends to come with negative effects.

Secondly, ICT is recommended as a must-have-tool in operations. Increasing the communication between co-workers, but also in between the different divisions throughout the company. ICT has proven to be an efficient tool in production and development, and can increase networks faster than other methods. If one were to implement proper ICT equipment into the company's operations processes, it is important to remember to give worker sustainable education of the technology, making sure they know the basics and have the possibility to further advance. Keeping up with updates on technology development is also important, following the development and adapting to it, creating competitive advantage.
7.3 LIMITATIONS & FUTURE RESEARCH

In the following text, a presentation of possible future research and limitations faced in this research will be presented. Some suggestions for future research are based on the limitations that has occurred during the course of the research, whilst other are aspects thought about as the research has prevailed. The limitations found exist because of a number of reasons, some were realized during the completion of the study, whilst other were not possible to carry out. Even though these limitations exist in the research, the study should still be believed as trustworthy and authentic, and the limitations should simply be viewed as further aspects that would contribute to more findings on the subject.

One of the limitations this study was faced with was the time and financial constraints. Whilst conducting an explorative research it can be found useful to observe participants during some period of time. As this research is based in another continent, and the participants live in Uganda, time for observation was limited. Due to financial constraints, the time in Uganda was limited to a few weeks. This restrained the possibility to complete more interviews with the participants as time to observe the learning sites during visits was short. For further research it could be interesting to do follow-up interviews on the participants, and hopefully observe and get to know the environment on a deeper level. It would also be of interest to visit other locations, could be other WPDI sites, or possibly view other NGO’s work with ICT and peace development. Conducting a research with higher participation could be a future path, receiving information from other areas in Uganda or possible advancing the research into other part of the world. Presenting the possibility to study how social capital and ICT is viewed in other regions and comparing it to the Ugandan participants.

Another limitation that we were faced with during interviews was the lack of knowledge participants had on certain aspects of the themes being discussed. What was found to be especially difficult to comprehend for the participants were the concept surrounding the theme economic performance. The participants were unsure of the meaning and had a hard time answering the questions concerning the theme without further information. For future research it could be considered to provide participants with more of this information beforehand, giving them an opportunity to reflect on the matter before answering question on the topic.

One of the questions that the respondents had split views about was the access of ICT in regards to the genders. Some interviewees expressed the situation be fairly equal, whilst other respondents presented a situation where the men had access to a greater extent than women. It would be interesting to conduct a research involving the matter further. The inequality between the genders is a highly debated subject in today’s society and furthering the research on the subject could generate interesting findings. The question could also be asked in terms of social capital, is there a difference between, for example genders social network, or find out which of the genders finds it easier to trust others. These are possible questions that could be used as a basis for future research.

WDPI works mostly in respect to three different educational areas: ICT, conflict resolution and peace development, and business, and for this research the focus has lied on ICT. Potential future research could be to look further into the effects the other two areas present, and what potential impacts they might portray on ICT and social capital.
8. TRUTH CRITERIA

In this chapter we present the paramount importance of the quality of this research. Presenting specific quality criterion needed to be met, and how the requirements of these criterions have been carried out throughout this study. Each criterion will be will firstly be presented and then matched with this research.

As presented in Umea University’s Thesis Manual (2018, p. 14) the quality criteria for qualitative research differs from a quantitative. This is also declared by Guba and Lincoln (1994, cited in Bryman & Bell, 2011, p. 395) which states that is necessary to specify ways to assess qualitative research differently than quantitative study. Guba and Lincoln present two primary criteria for assessing the quality of a qualitative research: trustworthiness and authenticity.

Trustworthiness in a qualitative research can be divided into four criteria: credibility, transferability, dependability, and confirmability.

8.1 CREDIBILITY

Credibility is said to be parallel to internal validity. This is a criterion that establishes the credibility of a research findings by ensuring that the research is carried out according to the rules of good practice and confirming that researcher has understood the respondent's answers (Bryman & Bell, 2011, p. 396). Credibility relates to the confidence and trustworthiness of the research findings, that all the information drawn from the participants’ is original data, and that interpretation of the findings correct compared to the participants’ original views (Korstjens & Moser, 2018, p. 121). There are different strategies to ensure credibility, one of them being prolonged engagement, which is the strategy used to assure credibility in our research. Prolonged engagement is established by several distinct questions are asked relating to the different topics in the research. The participants in the study are encouraged to support their statements with examples, and the interviewer can ask follow-up questions. From the raw interview material, researchers study the answers until a theory emerges providing them with the scope of the phenomenon of the research (Korstjens & Moser, 2018, p. 122). In order to ensure credibility for this study data was collected through a semi-structured interview allowing the possibility of follow-up questions and probes, ensuring clarification of fuzzy answers.

8.2 TRANSFERABILITY

Transferability corresponds to the degree of which the results of the study can be transferred to other surroundings with other participants (Korstjens & Moser, 2018, p. 121). As Guba and Lincoln (1985, cited in Bryman & Bell, 2011, p. 398) phrased it “hold in some other context, or even in the same context at some other time”. One can assure transferability and trustworthiness in a research by using thick description, where one presents the behaviour and experience, but also the context. By doing so the behaviour and experience become more meaningful for an outsider (Korstjens & Moser, 2018, p. 121). Throughout this research, we have given comprehensive text on what methodology used for this research. Presenting the philosophical and practical standpoints, where the process used have been thoroughly explained and described. In doing so we believe the reader will get an understanding of the process and context in which the research has
taken place. By providing relevant information about participants, and also about the interview setting and atmosphere, we believe the reader will get a better understanding of the data and its relevance in this research. Equipping the reader with this information, he or she is will be able to build on our results or use them practically.

8.3 DEPENDABILITY
Parallel to reliability used in quantitative studies you have dependability in a qualitative research. In order to establish merit for the research, researchers should use an ‘auditing’ approach (Guba & Lincoln, 1985, cited in Bryman & Bell, 2011, p. 398). Dependability refers to the stability of the findings over time, and that through an audit trail one can confirm the dependability of the research. The researcher is responsible for providing complete sets of notes on decisions made throughout the research process, enabling transparency of the research path (Korstjens & Moser, 2018, p. 122). For this research complete records have been kept and are easy to access, records involving; all the data, interview notes, interview guide, transcripts, and analysis of the data. All through the research, explanations of each step of the process have been provided. Explaining why or why not certain choices have been made. After conducting a thorough literature review, relevant theories and articles were selected in order to have a complete review around the research. The data collection method was made following the recommendations of methodological books, articles, and journals. Whereas the primary data was collected from twelve individuals interlinked with WPDI or Ericsson AB Uganda, and ICT and Social Capital in some way. Furthermore, we have ensured about participants ethical matters. Informing them about the research, the privacy concern, and by doing so avoiding causing them any harm or disappointment.

8.4 CONFIRMABILITY
Confirmability concern the degree to which the research findings could be confirmed by other researchers (Korstjens & Moser, 2018, p. 121). Ensuring the researcher has not allowed personal values or theoretical inclinations are not fragment from the researcher’s imagination, and that all the findings are derived from data (Guba & Lincoln, 1985, cited in Bryman & Bell, 2011, p. 398). “Confirmability concerns the aspect of neutrality”, the interpretation of respondents’ answers should not be based on the researcher’s views or preferences (Korstjens & Moser, 2018, p. 121). To ensure confirmability in our research we have presented our preconceptions of the research, discussing previous knowledge and background of this subject and how this could potentially affect the study. Even though the subject chosen for this research is based on our own interest, we have made sure every decision throughout the research process have been argued for, ensuring that we have tried to be unbiased all through the study. Being unbiased was especially important during the data collection and analysis, making sure personal values and opinions was not included, or having any impact on the results. By having open-minded on-going discussions throughout the whole research process, we have tried to avoid any impact of the pre-understandings.

8.5 AUTHENTICITY
Besides the four criteria of trustworthiness, Guba & Lincoln (1985, cited in Bryman & Bell, 2011, p. 398) suggest a fifth criteria, authenticity. Authenticity raises issues
concerning the wider political impacts of the research. Such as fairness, which questions whether the research represents the different viewpoints among members fairly. Other authenticity criterion is ontological authenticity, questioning whether or not the research helps members arrive at a better understanding of their social surroundings. Then there is educative authenticity, asking if the research could help members appreciate the perspectives of other members in their social surroundings. Catalytic authenticity, questions if the research has acted as an incentive for members to interact and change their circumstances. Lastly there is, tactical authenticity. Examining whether or not the research has empowered members of the research to take the necessary steps to engaging in action (Guba & Lincoln, 1985, cited in Bryman & Bell, 2011, p. 399). Authenticity is a criterion hard say whether one have reached or not during the research process, hence this is a criterion that can only be measured once the participants have received the research. It cannot be measured before the respondents have left their opinion and feedback about the research. To assure authenticity in this research, we made sure to be certain on every answer received during the interviews. Asking follow up questions to ensure that the interpretations made were correct, and that the respondents felt comfortable with that interpretation of their answers.
REFERENCES


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APPENDIX 1: WPDI’S VISION

OUR VISION

“In areas of the world affected by violence and poverty, we work closely with youths to empower them as conflict mediators and community builders who become our local partners in the pursuit of peace and sustainable development.

Our work is guided by the philosophy that people are better able to create transformative change when they work together.

WPDI’s peacebuilding, outreach, and educational programs impact hundreds of thousands of people worldwide. Specifically, our goals include:

**Empower youths**

To support a new generation of youth leaders and community builders by training young people in peacebuilding, conflict mediation, business and entrepreneurship, and information and communications technology (ICT).

**Strengthen communities**

To our innovation and the development of youth-led small businesses and other projects to help communities grow, thrive, and overcome obstacles to break perpetual cycles of violence.

**Promote education and connectivity**

To build hubs of learning, connectivity, and engagement through our network of Community Learning Centres (CLCs) at which people have the ability to access knowledge and the Internet.

**Disseminate peace**

To spread the values of peace, dialogue, tolerance, and inclusion – and to raise awareness of global injustices – around the world.

Through so doing, we seek to help communities affected by conflict become more resilient, peaceful, and prosperous.” (WPDI, n.d)
APPENDIX 2: INTERVIEW GUIDE

General Information:
1. Name
2. Age
3. Beneficiary or worker?
   i. Worker: How many years with WPDI?
   ii. What is your position within the company?
   b. Beneficiary:
      i. When you first introduced to the program?
      ii. How long have you been a part of the program?

ICT
4. What type of ICT have you used?
5. Access (how much/in what way/who)?
   a. How much?
   b. In what way?
   c. Who has this access?
      i. Age
      ii. Gender
6. How has the learning/teaching been of ICT?
7. What skills have you mastered?
8. How do you think this technology and/or knowledge can help you in the future?

Social Capital
9. How would you describe social capital?
10. How do you think this project will affect or have affected you individually?
11. How do you think this project will affect or have affected your community?
12. How do you believe your individual skills and knowledge, in any field, can help others in your surroundings?

ICT and Social Capital
13. How has ICT affected your social network?
   a. Increase/decrease
   b. Regions
   c. Structure
14. How do you believe your individual skills and knowledge in ICT can help others in your surroundings?
15. Have you seen any changes as a result from this project? How? In what way?
16. How do you think this project can affect other people than the ones actually taking part of it?

Economic Performance, ICT and Social Capital
17. How would you say this program has affected your private economy?
18. How would you say this program has affected the economy within your network?
19. What outcome do you see for this project in the future?
   a. Keep running?
   b. Shut down?
20. Have you seen any changes in society since the start of this program? In what way?
Dear participant,

We would like to thank you for taking your time to read this information as it is of great importance that you fully understand the meaning of taking part of this research. Before briefly describing the three of our main concepts for this study, we would like to introduce the study itself and what it will be used for.

We are two students from Sweden, currently writing our degree project for the International Business Program at Umeå University. Our thesis aims to explore the relationship between Information and Communication Technology (ICT), Social Capital, and Economic Performance among the young in northern Uganda.

If choosing to participate in this study, you will be giving the option to maintain anonymous in the thesis. This means that we will not provide any of your personal details in the final thesis and your answers will not be able to be traced back to you. The answers you give during your interview will only be used for our degree project and not published our used in any other context.

The purpose of this study is, as mentioned, to explore the relationship between ICT and social capital among the youth in northern Uganda. You have been chosen by WPDI as a potential participant due to your connection to the Harmonizer Program and the knowledge in the field of study. The answers you provide during the interview should be based on your own personal experience and thoughts. It is important that there is no ‘right’ or ‘wrong’ answers. During the interview, we expect you to be truthful and honest in your answers.

Below you will find an introduction to the main concepts:

**Information and Communication Technology (ICT)**

ICT is the umbrella term for all technologies used for information and communication purposes. Some of the more important components of ICT being the Internet, broadband, computers, telecommunication networks, and smartphones. These technologies are used to communicate, retrieve information, share knowledge and experiences, as well as contribute to society.

**Social Capital**

There are many similar definitions to this concept, we have chosen to use the following for the purpose of our thesis:

“Social capital is a person’s or group’s sympathy toward another person or group that may produce a potential benefit, advantage, and preferential treatment for another person or group of persons beyond that expected in an exchange relationship.”

This definition emphasises the importance of sympathy, in terms of trust and the feeling of being a member of the group, towards your society as this will help generate a greater
outcome. Social Capital is the collective capital, not necessarily financial, that will arise from working together and having the society’s best interest in mind.

**Economic Performance**

Economic performance relates to the increase or decrease in output and value for a country, society or a group of people. There are a few ways to reach economic performance, some of them being increasing the labour force (number of people working), economic resources (such as oil, metals etc.), or by efficiency in operations (implementing new technologies or strategies for example).

Once again, thank you for your time! We look forward to seeing you.

*Kind regards,*

*Lovisa Tunroth and Linda Mokvist*