

**EXPLORING WOMEN
EMPOWERMENT: A NIGERIAN CASE
STUDY OF NGOS' USE OF DIGITAL
TECHNOLOGY FOR NON-FORMAL
EDUCATION.**

By Victoria Nkiruka Ekwughe

Thesis submitted in fulfilment of the requirements for
the degree of

PhD

Under the supervision of
Professor Hilary Yerbury
Professor Bruce Mutsvairo
Dr. Amelia Jones

University of Technology Sydney
Faculty of Arts and Social Science

September 2020

CERTIFICATE OF ORIGINAL AUTHORSHIP

I, Victoria Ekwughe declare that this thesis is submitted in fulfilment of the requirements for the award of PhD, in the School Communication, Faculty of Arts and Social Sciences at the University of Technology Sydney.

This thesis is wholly my work unless otherwise reference or acknowledged. In addition, I certify that all information sources and literature used are indicated in the thesis.

This document has not been submitted for qualifications at any other academic institution.

This research is supported by an Australian Government Research Training Program.

Production Note:

Signature: Signature removed prior to publication.

DEDICATION

This work is dedicated to my mother Mrs. Joy Ekwughe, for her unfailing strength and never giving up on her dreams despite the challenges she encountered. And my father Mr Christian Ekwughe, for never giving up on your daughters, believing in us and providing all the support we need to be our best.

ACKNOWLEDGEMENTS

My profound gratitude goes to my God for His strength and grace that kept me through.

My special thanks go to my principal supervisor, Prof. Hilary Yerbury, thank you for believing in me and giving your time to help me complete my thesis successfully. Prof. Bruce Mutsvairo, words fail me to describe my gratitude to you. I will forever remember all your sacrifice and tremendous assistance to me. To Dr. Amelia Johns and Dr. Catriona Bonfiglioli, I am grateful that you stepped in almost at the end of my studies and guided me to completion.

I cannot fail to thank my parents, Mr. & Mrs Christian Ekwughe, whose love, encouragement, firm belief in my ability to excel spurred me to achieve the best I could, and despite all odds ensured they gave me the best in school. I also express my gratitude to my siblings, Mrs Blessing Okam & her family, Faith Chioma and Ebuka, for their firm support, and aiding me whenever they could. To my maternal Uncles and Aunts who believed in me and kept encouraging me all through the way, I just cannot thank you enough.

I also want to thank my beautiful friends, Michael Daramola, Okeke Stella, Ojukwu and Ifeanyi, Umeugoji Blessing.

I am most thankful to Magnum proof reading services, Vanessa Bell and Vera Williams Tetteh who took their time and effort to proofread this thesis.

My gratitude to the NGOs, Women Technology Empowerment Centre (WTEC), Working for the Advancement of African Women (WAAW), Empowering Women for Excellence Initiative (EWEI), for giving me the opportunity to study them and supporting me through the data collection process.

To my family at Petersham AOG, I love you all, and I am proud to be a part of God's big family.

LIST OF IMAGES

Image 1: Image depicting one of the aims of a programme	118
Image 2: The winning group for the project in NGO A	120
Image 3: An image depicting the aim of NGO B	122
Image 4: An image from NGO B depicting the aim of one of their programmes	123
Image 5: Training session on Robotics	125
Image 6: Training Session on African bag	135
Image 7: Training Session on digital printing	136
Image 8: Participants in a training session by NGO B	143
Image 9: NGO Cs Content post In English and Hausa	146
Image 10: NGO Cs Facebook Post in Pidgin and Standard English	147
Image 11: Facebook post by NGO C	147
Image 12: NGO Cs Facebook post on Breastfeeding babies	148
Image 13: Facebook post by NGO C fighting against Gender-based violence	148
Image 14: NGO C's Facebook post educating people on actions to take against Gender-based violence	148
Image 15: NGO C's Facebook post sensitising the people on breast cancer	149
Image 16: Participants displaying their finished Ankara bag	149
Image 17: Facebook post by NGO A to encourage women to pursue excellence	150
Image 18: Facebook post by NGO B to encourage and motivate women.....	150
Image 19: Facebook post by NGO B promoting their programme	152
Image 20: Screenshot of Facebook comment	152
Image 21: Screenshot from Facebook comment	153
Image 22: Screenshot of Facebook Comment	153
Image 23: Screenshot from Facebook live stream	154
Image 24: NGO A WhatsApp post advising participants about opportunities for professional development	158
Image 25: NGO A WhatsApp post about employment opportunities	158

LIST OF TABLES

Table 1: Statistics of Male to Female Population in Nigeria	16
Table 2: Key Milestone of Education in Nigeria.....	29
Table 3: Summary of the NGOs	109
Table 4: NGOs and Numbers of Facebook Followers.....	146
Table 5: Facebook post for NGO A from May 2018 – October 2018.....	154
Table 6: Facebook post for NGO B from May 2018 – October 2018.....	155
Table 7: Facebook post for NGO C from May 2018 – October 2018	155
Table 8: Number of Facebook video contents	156
Table 9: Number of YouTube Subscribers and Video Uploads	159
Table 10: Number of YouTube Videos	160

LIST OF ABBREVIATIONS

ASUU - Academic Staff Union of Universities

AVSI - Association of Volunteers in International Service

CEDAW - Committee on the Elimination of Discrimination against Women

CEPWOP - Civic Education and Participation for Women Project

CIL - Communication Investment Limited

CMC - Computer-mediated communication

DE - Distance Education

EFA – Education for all

ERGP - Economic Recovery and Growth Plan

EWEI- Empowering Women for Excellence Initiative Nigeria

FME - Federal Ministry of Education

FRN – Federal Republic of Nigeria

FSBEP - Family Support Basic Education Programme

GSM - General system for mobile

HGSFHP - Home Grown School Feeding and Health programme

ICT – Information Communication Technology

i-CLAP - Interactive Child Learning Aid Project

IPPF - The International Planned Parenthood Federation

ISP - Internet service providers

LGA – Local Government Areas

MDGs - Millennium Development Goals

MIT - Massachusetts Institute of Technology

MOOCs – Massive Open Online Courses

MSP - Ministerial Strategic Plan

NBC – Nigeria British Council

NCC - Nigerian Communications Commission

NCMLNFE - National Commission for Mass Literacy and Non-Formal Education

NDP - National Development Plan

NEPAD - New Partnership for Africa’s Development

NFE – Non-formal Education

NMDG - Nigeria Millennium Development Goals

NGN – Nigerian Naira

NGO – Non-government Organisation

NITEL - Nigeria Telecommunication

NPC - National Population Commission

NPE – National Policy on Education

OCW - Open Course Ware

OECD – Organisation for Economic Co-Operation and Development

OERs - Open Educational Resources

OLPC - One Laptop Per Child

PDA – Personal Digital Assistant

SAGEN - Strategy for the Acceleration of Girls Education in Nigeria

SMW – Social Media Week Lagos

STEM – Science, Technology, Engineering and Mathematics

TA – Thematic Analysis

UBE – Universal Basic Education

UBEP - Universal Basic Education Policy

UNESCO - The United Nations Educational, Scientific and Cultural Organization

UNICEF - The United Nations International Children’s Emergency Fund

UNO - United Nations Organisations

UPE – Universal Primary Education

VSAT - Very Small Aperture Terminal

WAAW -Working to Advance STEM education for African Women Foundation.

WSIS - World Summit on the Information Society

W.TEC- Women Technology Empowerment Centre

WNGO - Women NGO

WWW - World Wide Web

ABSTRACT

This ethnographic study explored women's empowerment through programmes of non-formal education (NFE) offered by Nigerian NGOs using digital technologies. Women in Nigeria have been systematically disadvantaged in education and employment, and programmes of non-formal education have been established throughout the country, especially by women's NGOs, in an attempt to redress this inequitable situation. The ability to use digital technologies has been considered fundamental for the success of individuals and for the development of the country. Thus, the concepts of empowerment, non-formal education and the use of digital technologies were central to the study.

NFE programmes offered by three Nigerian women's NGOs were the focus of this study, which combined online and offline ethnographic methods. Data was collected from NGO staff and programme participants using observation and semi-structured interviews. The online presence of the NGOs was investigated using netnography. Thematic analysis was used to analyse the data.

The findings of the study show that the aims of the programmes align with the aspirations of participants, to improve the standard of living, and thus might be considered empowering. However, selection criteria, the requirements of sponsors and the perceptions of NGO staff meant that many women were excluded. Infrastructural problems including access to electricity undermined some efforts to develop skills. NGO staff, volunteers and trainers were not always able or willing to exploit fully the possibilities of the range of digital technologies, but the use of WhatsApp by two NGOs was particularly successful in supporting learning and in extending the experiences of participants. In these programmes, digital technologies were a two-edged sword, providing a competitive advantage to those with formal education and pre-existing skills thereby further marginalising those without.

While the empowerment framework assigns equal importance to the tenets of the framework, this study concludes that in the Nigerian context of these three NGOs, the empowerment framework demonstrates that the significance of infrastructure can outweigh the interplay of various factors and the importance of agency. Importantly, the study reinforces that the digital divide is less about access to equipment and more about opportunities created or denied through social norms and expectations.

TABLE OF CONTENTS

Title Page	
Certificate of Original Authorship.....	i
Dedication.....	ii
Acknowledgement	iii
List of Images	iv
List of Tables	v
List of Abbreviations	vi
Abstract	ix
Table of Contents	x
CHAPTER ONE	1
1.1 INTRODUCTION	1
1.2 RESEARCH QUESTIONS.....	6
1.3 RESEARCH AIM AND OBJECTIVES	6
1.4 RATIONALE OF THE STUDY	7
1.5 SIGNIFICANCE OF THE STUDY	10
1.6 SCOPE OF THE STUDY.....	11
1.7 CONTEXTUAL DEFINITION	11
1.7.1 Digital Technologies	11
1.7.2 Empowerment	11
1.7.3 Women.....	12
1.7.4 NFE	12
1.7.5 Digital Divide.....	12
1.8 STRUCTURE OF THE THESIS	12
CHAPTER TWO	15
2.1 INTRODUCTION	15
2.2 GEOGRAPHY OF NIGERIA	15
2.3 NIGERIA’S ECONOMY	16
2.4 SOCIO-POLITICAL TERRAIN OF NIGERIA.....	17

2.5	THE NATIONAL POLICY ON EDUCATION (NPE) AND THE EDUCATION LAWS OF THE SCHOOL REPUBLIC (1977- UNTIL DATE)	19
2.6	ICT POLICY IN NIGERIA	23
2.7	GENDER NORMS IN NIGERIA.....	24
2.8	OVERVIEW OF WOMEN’S EDUCATION IN NIGERIA	26
2.9	NFE AS A STRATEGY FOR WOMEN’S DEVELOPMENT IN NIGERIA	30
2.10	NGOs AND NFE IN NIGERIA	31
2.11	NFE AND THE IMPORTANCE OF ICTs.....	34
2.12	CHAPTER SUMMARY.....	34
CHAPTER THREE		35
3.1	INTRODUCTION	35
3.2	CHALLENGES TO WOMEN’S EMPOWERMENT	36
3.2.1	Patriarchy	36
3.2.2	Digital Divide.....	39
3.3	CONCEPTUALISING WOMEN’S EMPOWERMENT	41
3.3.1	Feminist Theory	43
3.3.2	Education Empowerment Theory	44
3.4	WOMEN’S EMPOWERMENT AND GENDER EQUALITY	45
3.5	WOMEN’S EMPOWERMENT AND NFE.....	52
3.5.1	Economic empowerment	56
3.5.2	Political empowerment.....	59
3.5.3	Micro/household empowerment	60
3.5.4	Psychological empowerment.....	62
3.5.5	Knowledge empowerment.....	62
3.6	THE USE OF DIGITAL TECHNOLOGY IN NFE.....	65
3.6.1	APPROACHES TO THE USE OF DIGITAL TECHNOLOGIES IN EDUCATION.....	67
3.6.2	CHALLENGES OF ADOPTING DIGITAL TECHNOLOGIES FOR NFE.....	71
3.7	BRIDGING THE DIGITAL DIVIDE: NGOs AND WOMEN’S EMPOWERMENT.....	73
3.8	CHAPTER SUMMARY.....	75
CHAPTER FOUR		77
4.1	INTRODUCTION	77
4.2	PHILOSOPHY OF RESEARCH APPROACH.....	77
4.3	EPISTEMOLOGICAL POSITIONING.....	78
4.4	POSITION OF THE RESEARCHER.....	81
4.5	RESEARCH DESIGN	83
4.5.1	Qualitative Research	83

4.6	RESEARCH METHOD.....	83
4.6.1	Case Study	83
4.7	RESEARCH APPROACH	85
4.7.1	Ethnography	85
4.7.2	Netnography.....	93
4.8	SAMPLING METHOD	98
4.9	METHOD OF DATA ANALYSIS	99
4.9.1	Thematic Analysis (TA)	99
4.10	JUSTIFICATION FOR ADOPTING THE RESEARCH METHOD.....	101
4.11	ETHICAL CONSIDERATIONS	102
4.12	REFLEXIVITY	103
4.13	CHAPTER SUMMARY.....	106
CHAPTER FIVE		107
5.1	INTRODUCTION	107
5.2	BACKGROUND INFORMATION ON CASE ORGANIZATIONS.....	108
5.2.1	NGO A.....	109
5.2.2	NGO B.....	111
5.2.3	NGO C.....	113
5.3	TARGET AUDIENCE FOR PROGRAMMES	114
5.4	PROGRAMMES AND COURSE CONTENT	116
5.5	STRUCTURE OF TRAINING	118
5.6	PURPOSE OF THE PROGRAMMES	121
5.6.1	Knowledge Empowerment	121
5.6.2	Economic Empowerment:	135
5.6.3	Psychological Empowerment:.....	142
5.7	THE USE OF TECHNOLOGY	144
5.7.1	Access to Internet Facilities	144
5.7.2	Informational purpose:	146
5.7.3	Publicity Purpose:	151
5.7.4	Educational purpose:	156
5.8	PARTICIPANTS' EXPERIENCE OF ONLINE LEARNING	161
5.9	CHALLENGES TO USING DIGITAL TECHNOLOGY	164
5.9.1	Infrastructure.....	164
5.9.2	Digital Divide/Illiteracy:.....	166
5.9.3	Lack of trained staff.....	167

5.10	CHAPTER SUMMARY.....	168
	CHAPTER 6.....	170
6.1	THE EMPOWERMENT FRAMEWORK.....	170
6.1.1	Agency.....	170
6.1.2	Resources:.....	173
6.1.3	Institutional structures.....	184
6.1.4	Outcome of development.....	188
6.2	RECONSIDERING THE EMPOWERMENT FRAMEWORK.....	189
6.3	TECHNOLOGY AND WOMEN'S EMPOWERMENT.....	189
6.3.1	Empowerment and its challenges.....	189
6.4	CONFRONTING THE DIGITAL DIVIDE.....	192
6.5	POWER RELATIONS.....	198
6.6	CONCLUSION.....	201
	CHAPTER SEVEN.....	204
7.1	SUMMARY.....	204
7.2	CONTRIBUTION TO KNOWLEDGE.....	207
7.3	IMPLICATIONS FOR NGOs.....	210
7.4	FURTHER RESEARCH.....	214
7.5	LIMITATIONS OF THE STUDY.....	217
7.6	CONCLUSION.....	218
	Appendices	
	Appendix One: Participant Brief.....	220
	Appendix Two: Participant Informed Consent Form: Interview.....	222
	Appendix Three: Participant Informed Consent Form: Participant Observation.....	223
	Appendix Four: Interview Guide for programme participants.....	224
	Appendix Five: Interview Guide for programme directors.....	225
	Bibliography.....	226

CHAPTER ONE

BACKGROUND TO THE STUDY

1.1 INTRODUCTION

Governments, the development sector, and non-government organisations (NGOs) aim to empower women on various grounds and with different objectives. Providing diverse educational and development programs and empowering women to promote gender equality are some of the goals of these organisations. To achieve women's empowerment, key actors must apply multiple strategies that include the integration of digital technology into non-formal education (NFE). NFE is applicable in areas of gender to enhance people's life skills, help them to achieve literacy, and educate them about human rights and other related fields. The overall aim is to raise the consciousness and the agency of women.

Social scientists have long recognised that empowering women reduces the inequitable gender structure in most societies. In a gender-balanced society, women are likely to be more productive than men. For example, Dubow and Pruitt (2017) suggest that firms led by females have higher average rates of return than firms led by men. Sen (1998) agrees that the provision of education increases human development.

Thus, empowering women is crucial for organisations (both governmental and non-governmental) seeking to increase their productivity and socioeconomic status. Previous analyses have shown that a significant contributor to economic growth is women's empowerment. More specifically, an increase in females' access to higher levels of education accounts for 25% of the growth in the economies of countries belonging to the Organisation for Economic Co-operation and Development (OECD) (OECD, 2012). However, there relatively little knowledge is available about the programmes and services organisations to provide to empower women and whether the services have an impact on women's empowerment.

When seeking to empower women and reduce gender inequality, organisations increase their access to information (Olatokun, 2017). This increased access might involve the education of women and the provision of materials at their disposal (Fletcher, Pande,

and Moore, 2017; Waiswa and Phelps, 2017). To further ensure that the needs of women were included as part of Nigeria's development priorities, the country's National Commission for Women was created to develop a national policy for women and their development in 1989. According to Adedire and Olomukoro (2015), this led to the creation of women's education units at federal and state levels for improving access to education for women and girls at national and sub-national levels. These programmes include the National Commission for Mass Literacy and NFE (NCMLNFE) (established in 1991), the Family Support Basic Education Programme (FSBEP) (established in 1994), the Universal Basic Education Policy (UBEP) (established in 1999), the Strategy for the Acceleration of Girls' Education in Nigeria (SAGEN) (established in 2003), and the Universal Basic Education Act (established in 2004), amongst others. Most of these policies were created to achieve the Education for All goals and Millennium Development Goals (MDGs). However, these policies could not reach all of their targeted results (Adamu, 1996). Nigerian girls still face a considerable number of challenges in obtaining equitable access to education due to religious and cultural internal dynamics, economic and geographic inequalities, poverty, the crisis in the implementation of national and state policies on education, and, recently, terrorism-precipitated insecurity (Okorie, 2017).

In Nigeria, NGOs play essential roles in the advancement of women's affairs. Primarily, they offer viable platforms for the promotion of gender balance through public education and empowerment, social mobilisation, and sensitisation; they also intend to influence the formulation and implementation of gender-friendly policies (Jacobs, Olanrewaju, and Chukwudi, 2017; Armstrong and Butcher, 2018). Furthermore, they advocate and externalise the gender struggle, linking the local to the global in terms of gender discourse. These responses might account for the marginal improvement in gender awareness and dialogue in Nigeria in the early years of the 21st century (Karunwi, 2004). To bring about change effectively, it is crucial to provide information to enlighten, educate, and empower women to stand up and strive for this cause.

To date, researchers have examined the educational attributes of mobile and ubiquitous learning in various settings, such as in formal education contexts (Heflin, Shewmaker, and Nguyen, 2017), in the workplace, and in the context of lifelong learning (Briken,

Chillas, and Krzywdzinski, 2017; Ifenthaler, 2018). In recent research on mobile lifelong learning initiatives, Churchill, Pegrum, and Churchill (2018) posit that most of the programmes focus on circulating learning content rather than using mobile devices for social interactions among learners and teachers.

Development agencies involved in NFE remain concerned that the association between mobile devices and the socio-economic development of a society is vague (Sam, 2017). We can draw references from three opposing research groups that support mobile devices research in third world countries. The first group, the deterministic technological proponents, maintain that mobile devices are instrumental for improving the standard of living of poor people (Eagle, 2010; Sam, 2017). Here, the result of development projects or mobile phone applications determines the impact that mobile phones have (Agwu and Carter, 2014). The second group of scholars criticize the theory that increasing access to mobile devices strengthens and widens the current socio-economic inequality between those who are in the upper echelons of the society and those who are lower on the social ladder (Wasserman, 2017). The third group of researchers believe that mobile devices are instrumental for improving the well-being of people (Donner, 2008).

New technology can work against the immediate interests of women (Adeyinka and Aluko, 2018; DeKeseredy et al., 2016). Formal technical education programmes do not contribute significantly to alleviating poverty. This is especially true in most developing countries, where a significant percentage of the population is destitute and have no access to formal education (UNESCO, 2012). Further, NGOs that teach specialised skills (Nandan and Kushwaha, 2017) are usually located in major cities where there is adequate teaching staff, and this contributes to the inaccessibility of the programmes to the poor rural population (Mahmud, 2017). Therefore, the programmes are expensive for rural dwellers, as their participation may force them to travel to access the education, thus increasing the total cost of acquiring the knowledge (Ali and Khawaja, 2017). Gulati (2008) states that the existing efforts to expand access to IT in developing countries have failed to provide equal opportunities to everyone. Based on research findings, the rich, urban elite and the upper-middle class in developing countries are the primary beneficiaries of IT infrastructures and investment (Intriligator, 2017). Similarly,

in a study by Navabi, Ghaffari, and Jannat-Alipoor (2016), it was shown that language barriers, low levels of literacy, and technology anxiety are the most significant barriers to adult learners' adoption of mobile devices as a teaching aid. In addition, mobile infrastructure directly influences the quality of the experience (Nikou and Economides, 2017), making it necessary for the government to assist in ensuring that relevant infrastructures are available to learners (Valk, Rashid, and Elder, 2010). The potential of digital technology for women's empowerment is tremendous; however, programmes inadequately address gender inequality (Conley, 2017).

Notwithstanding, some researchers propose that digital technology positively influences NFE and social inclusion by providing an opportunity for learners to participate in learning, expanding their options, and promoting flexible or personalised learning programmes (Tchamyou, 2018; Friederici, Ojanperä, and Graham, 2017). Additionally, digital technologies have the potential to reach learners who are often overlooked by traditional forms of technology-enhanced learning (Churchill, Pegrum, and Churchill, 2018).

While there has been research on the use of digital technology (as discussed above), these studies are focused on Western or other Global South countries. Some of the reasons submitted by Mutsvairo (2018) include cultural and language barriers. However, due to the rise in decolonising research in Africa, there has been an increase in media research (e.g. Mutsvairo, 2018, 2016; Ndlela and Tufte, 2017; Ndlela, 2015). However, these studies focus on digital activism, citizen journalism and how the use of new media can empower a citizen to participate in the politics of a nation (Ndlela and Mulwo, 2017) rather than on NFE geared towards women's empowerment.

This thesis, therefore, explores through exploratory qualitative research the programmes and activities selected by NGOs to promote the empowerment of women via NFE. This study focuses on three NGOs. Two (referred to as "NGO A" and "NGO B") are based in the city of Lagos, one of the most advanced and modern cities in the country, while the third ("NGO C") is located in the northern part of the country.

By applying thematic analysis, the data will be cross-referenced to identify recurring themes in the responses from the interview data. The researcher put the interview-based data into codes and themes to create a thorough review.

The theoretical framework of the study draws upon the combination of NGOs' work and women's empowerment, especially the empowerment framework. Considering the context and scope of the research, rural and low-income earners are not versatile to the point of seeking personal development. They may have smartphones, but they do not know about the opportunities available to them. For example, there are mobile service providers in Nigeria who liaised with Facebook to provide "Facebook basics" (a function of Facebook that offers open-access resources to the public) at no extra charge (Social Media Week Lagos, 2017). Despite the availability of such opportunities, only a few women are aware of them. The only way rural women can become aware of such possibilities is through contact with people who can bring their attention to the availability of such programmes.

Conceptually and practically, the basis for incorporating the empowerment framework is that it brings into play the interconnectedness between individual agency, capability, institutional structure, the level of empowerment, and development outcomes, as well as the ability of individuals to navigate through the institutional structure, which feminist theory portrays as differing and repressive situations that influence the lives of women. Feminist theory enables the researcher to gain an insight into the factors that influence gender disparity in education. Feminist theory exposes the factors that limit individuals and groups from making decisions that significantly influence their lives. A social constructivist approach emphasises the need for social interactions and networked communities to foster a productive learning outcome. According to social constructivists, learning is collaborative and the development of knowledge is achieved by individuals' interactions with culture and society (Reynolds, 2016).

This study centres on NGO's attempts to empower disadvantaged Nigerian women via NFE using digital technology. The background of the study, problem statement, research aim and objectives, and significance of the study are presented herein. Furthermore, this chapter discusses the contextual definition of "critical terminology".

1.2 RESEARCH QUESTIONS

This study seeks to explore the following questions:

1. To what extent do the selected Nigerian-based NGOs empower women via NFE using digital technology? I am interested in the empowerment programmes organised by NGOs and how they use digital technology for their planned programmes to engage participants.
2. What NFE programmes have the selected NGOs implemented, and how do these programmes meet the needs of women and empower them? I am interested in examining the relevance of the programmes as mentioned above to women (i.e., does any part of the programme meet the needs of the participants?). Considering that the participants of NFE have various needs and goals, educational content must be tailored to meet their needs.
3. What are the opportunities and challenges associated with using digital technology for the programmes, and what are the implications for future programmes?

1.3 RESEARCH AIM AND OBJECTIVES

This study uses an ethnographic approach to explore women empowerment programmes organised by selected NGOs via NFE and the use of digital technology in Nigeria.

The specific objectives of the study are as follows:

1. To identify how NFE programmes implemented by selected NGOs for women's empowerment achieve their objectives from the perspectives of their staff and participants
2. To examine how the selected NGOs utilise digital technology in the identified programmes and how these uses match the background, knowledge, and skills of participants
3. To identify the opportunities and challenges faced by NGO staff and participants when using digital technology.

1.4 RATIONALE OF THE STUDY

Education is a fundamental human right, yet incessant disparities in education impair the lives of the majority of the female population worldwide (Akar and Erdogdu, 2018). Irrespective of the advancements made in recent years, throughout their lives, girls continually suffer serious injustices and exclusion from education systems (Creighton and Omari, 2018). There were an estimated 31 million girls of primary school age and 32 million girls of junior secondary school age who did not complete their education in 2013 (UNICEF, 2015). Of all the regions in the world, the countries with the lowest proportion of gender parity are located in sub-Saharan Africa. Girls have significantly lower completion rates and learning levels than boys in these regions.

Additionally, as girls progress through the education system, their participation in school decreases (Psaki, McCarthy, and Mensch, 2018). According to a report by UNESCO (2015), it will take an additional 60 years for girls from poor backgrounds to complete primary school in comparison to the wealthiest boys in sub-Saharan Africa. Around the globe, the universal primary education completion rate for the poor in some countries will not be achievable for at least another two generations.

These gender inequalities have changed very little over time. A report by UNESCO shows that 2/3 of the world's 774 million illiterate adults are women, and 76 million of the world's 123 million uneducated youth are females. There has been no reduction in this number over the last 20 years (UNESCO, 2015). The rate of female literacy is under 50% in over 12 countries in sub-Saharan Africa. In some instances, this rate is below 20%. Global statistics indicate that 39% of rural girls attend secondary school, which is less than the 45% of rural boys, 59% of urban girls, and 60% of urban boys who attend secondary school (UNESCO, 2015; UNICEF, 2015).

In the Nigerian context, statistical reports from studies carried out by Omoregie and Abraham (2009) and Akinbi and Akinbi (2015) on the persistence of gender inequalities in education reveal that for primary, secondary, and university enrolments, there has been a higher percentage of male registration at different levels of education. Dauda (2007) reviewed policy initiatives related to female education and concluded that government policies on free access to education for all were centred on unfulfilled

promises. As a result, it is pertinent to focus on other forms of education for disadvantaged women, hence the need for NFE.

A report by UNICEF (2015) found that Nigeria was not able to achieve universal primary education, the target of the Millennium Development Goals. As of 2013, net enrolment in the country was 54%, representing a reduction of 4% since 1995 despite the implementation of strategies to achieve the goal. In 2015, 40% of Nigerian children aged 6-11 were not attending primary school, with more girls affected than boys due to the factors described in the following paragraphs.

Socio-economic barriers, such as the burden of household chores on girls, access to water and sanitation facilities, teachers' absenteeism, high student-to-teacher ratios, corporal punishment, and infrastructural deficiency, amongst others, are partly responsible. Poverty, hidden fees, and the cost of sending children to school also affect the enrolment of girls in school. Although education is officially free, hidden fees, such as those for parent-teacher associations and school uniforms, are barriers to parents who cannot afford them while balancing immediate versus secondary needs. Basic needs such as food, clothing, and housing are of a higher priority than education.

Also, corruption, which has impeded access for many people to essential goods such as food and shelter, has prevented many children from attending school. Societal norms, harmful cultural practices, and gender stereotypes are additional barriers.

Finally, geographical inequalities affect girls' access to education. To benefit from information, an individual must have access to information communication technologies (ICTs), as well as the knowledge and proficiency necessary to use them. Because females are less likely than males to own these devices and attend formal education, they are at a disadvantage to benefit from the information-based society (Melhem, Morell, and Tandon, 2009). Institutions of learning in Nigeria have failed to adopt teaching and learning technology to schools (most notably, WiFi and computers) (Alwraikat, 2017; Olokooba et al., 2018; Bolanle, AbdulRaheem, and Ismail, 2019).

In recent times, NGOs have progressively been working as drivers for social change, mainly using activities to promote empowerment (Banks, Hulme, and Edwards, 2015). Some scholarly works have investigated the concept of empowerment in general terms

and the existence of women NGOs in different areas. However, only a few studies have examined how NGOs utilise digital technology for women's empowerment via NFE. Some of these studies (e.g., Orgeret, 2018) explain the discourse of technology as a means of reducing socio-economic inequalities. This is because a considerable amount of research has focused on development issues, thereby prompting scholars to focus on women in development consultancies and donor-driven research at the expense of independent theoretical research. Orgeret also argues that there is a need for research that does not instrumentalise ICT but that instead examines technology through the lens of feminist critiques.

Kamau (2016) agrees that the process of social change involves acquiring information, developing knowledge, and sharing knowledge, all of which digital technology makes possible. Despite the benefits inherent to the advent of digital technology, there is still a dichotomy in terms of its usage for women's empowerment, especially among marginalised and low-income earners.

Though there is an increasing interest in the utilisation of mobile devices to promote adult learning, to date, there is somewhat inadequate systematic research about mLearning in adult education and lifelong learning contexts. An exception to this is workplace mLearning, a field for which there are diverse and extensive research and reports. There is still an ongoing investigation as to whether, and how, educational technology is applied in the pursuit of learners' personal goals, while research in the broader perspective of mobile adult education is still fragmented (Pachler, Pimmer, and Seipold, 2011).

It is within this context that I propose an exploration of NGOs' use of digital technology for women's empowerment in Nigeria. This empirical study employs ethnographic fieldwork and generates data from semi-structured interviews with NGO staff, facilitators, and participants. Participant observations and netnography, was adopted to investigate the role that NGOs play in promoting women's empowerment using digital technology, especially in rural communities.

1.5 SIGNIFICANCE OF THE STUDY

Women's NGOs are involved in women's activism and support the struggle for the empowerment and emancipation of women. To achieve their goals, they need to build a mass social movement of people who put their ethics into practice. They promote sustainable development, fight to protect the rights of women, and are dynamically involved in different types of women-empowerment activities. There is a long-standing recognition of NGOs as possessing a vision to shift people's unsustainable attitudes and behaviours toward more sustainable trajectories.

To achieve this vision, especially as it relates to marginalised and disadvantaged women, NGOs need to draw the attention of these women to the opportunities available to them via digital technology. One such opportunity lies in NFE. While long-distance learning is gaining prominence in Nigeria, the delivery of NFE via digital platforms has yet to be fully explored in the context of Nigeria's NGOs. Nigeria's women's activism is rooted in Nigeria's civil society and is attributed to its educated and engaged population, a legacy of its colonial status. Addressing the challenges ahead of sustainability requires NGOs to adopt a new approach. This research examines how NGOs use digital technology to deliver NFE to women. Although the general tactics utilised by some NGOs are general knowledge, no systematic studies have been carried out in Nigeria to account for the use of digital technology for the NFE for women. By analysing how NGOs use digital technology for NFE, women, as well as the public in general (and the members of such organisations in particular), will be able to utilise the opportunities available to them via digital platforms to educate themselves.

Most researchers on the use of ICT for women's empowerment in Nigeria neglect the role that NGOs play in the use of digital technology. Such researchers focus on the prospects and challenges of digital technology (Akomolafe and Adegun, 2013; Danjuma, Onimode, and Onche, 2015), the use of digital technology for poverty alleviation (Mbuyisa and Leonard, 2017; Tijjani, Anaeto, and Emerhirhi, 2017), or the use of ICT in formal education contexts (Ọláyọkù, 2017). A closely related study by Oyelude and Bamigbola (2013) on the empowerment of women through providing access to information exploring the strategic roles of NGOs in Nigeria focuses on the mission, objectives, and strategies of NGOs to provide access to information for women's

empowerment in Nigeria. The present study contributes to the knowledge base by providing an in-depth analysis of specific programmes organised by NGOs and incorporating participants' perceptions of their experiences.

1.6 SCOPE OF THE STUDY

This study is limited to three women-centred NGOs in Nigeria. In the interest of their privacy, the NGOs are anonymised. These NGOs are labelled as NGO A, NGO B and NGO C.

Each organisation's head and facilitators of training were interviewed. Furthermore, each NGO's website, Facebook, WhatsApp group, and YouTube pages were observed. In Nigeria, Facebook and YouTube are readily available and preferred over other social media platforms. Many entrepreneurs and business owners post video tutorials on YouTube. The period of study is May to October 2018.

1.7 CONTEXTUAL DEFINITION

This section provides definitions of key terms in the context of the study.

1.7.1 Digital Technologies

Digital technologies in the context of this study, include educational technology, mobile devices and applications, social media, blogs and websites, personal computers and laptops, and Internet connectivity.

1.7.2 Empowerment

Empowerment is the ability to take action rather than a preoccupation with improvement in authority or self-confidence. This study does not set out to evaluate the outcomes of an individual's ability to take action.

The process of change, rather than the result, is of considerable significance here, as is the individual's agency in the process of empowerment (Oreglia and Srinivasan, 2016). In this study, agency is the individual's ability to make choices and influence their immediate environment (Buskens, 2010). This perspective of empowerment focuses on equipping people to improve their abilities to their full potential (Gigler, 2004), which is in line with Sen's (1997) concept of capability, which views development as the process

of enhancing the liberty of individuals so that they can enjoy and live their lives as they want to.

1.7.3 Women

In this study, the term “women” is used to refer to females who are at least 14 years old, educated, have had no access to formal education, and have had to drop out of school at some point in their life.

1.7.4 NFE

NFE in the context of this study is an out-of-school programme organised by NGOs. In the literature, this is sometimes referred to as adult education; however, given the specific Nigerian context of this study, the term NFE is preferred.

1.7.5 Digital Divide

Digital divide in the context of this study refers to the submission of Ragnedda and Ruiu (2017) relating to the three levels of the divide. The first level of the divide is the divide in access and availability to technology, the second level is the divide in regards to skills and knowledge related to the use of technology, and the third level is the divide in regards to the intended benefits from using technology.

1.8 STRUCTURE OF THE THESIS

There are seven chapters in this thesis, as follows.

Chapter 1 – Introduction: This chapter introduces the subject area of the research; it presents the objectives and research questions and sketches the structure in which this issue is situated. In addition, this chapter describes the significance of the study.

Chapter 2 – Nigeria, The Context: This chapter provides information about the context of Nigeria. It includes background information about women’s education and NFE in Nigeria, and it discusses the historical and cultural context of the thesis. It also provides information about the educational and ICT policy in Nigeria. Lastly, it provides an overview of NGOs in Nigeria.

Chapter 3 – Literature review: This chapter discusses the theoretical framework adopted for this study, introducing feminist theory with a focus on empowerment. It also identifies the debate surrounding women’s empowerment and the use of digital

technologies. This chapter considers previous research conducted on the topic and explains how such literature is significant to the current research. It also discusses some recent studies that have been undertaken in similar contexts. This section is essential for understanding the complexities in the literature.

The assertions presented in this chapter pertain to the broad adoption of women's empowerment, NFE, and digital technology by NGOs. The section also introduces the approaches of digital technology for education. This chapter serves as an essential background to the critical analysis of women's empowerment using digital technology for NFE, thus presenting the scholarly context of this study.

Chapter 4 – Research Methodology: This chapter describes the overall research design. It explains the approach to data collection, the types of data sought, and the data analysis process. This chapter is crucial for establishing the trustworthiness and credibility of the research, as it provides, detailed information about the process of data collection. The study adopted an ethnographic case study approach, incorporating observations and in-depth interview with NGO staff and participants. The use of netnography was aimed at elucidating what NGOs do with their social media platforms and how they use them in programmes of NFE to educate women.

Chapter 5 – Findings: This chapter offers an analysis of the data collected regarding the use of digital technologies for women's empowerment via NFE by NGOs. It draws attention to a significant recurring theme within NGO programmes – the inclusion of women in technology. The actions and motivations of the NGOs and their participants are described. This chapter identifies points of agreement and conflict regarding the statements and actions of NGOs and their staff. It also compares and contrasts the perceptions of participants, NGOs, and their staff.

Chapter 6 – Discussion: The discussion presented in this chapter frames the results firmly within the theoretical framework and the literature outlined in Chapter 3. It shows that the findings of this study are mostly in alignment with the findings of previous studies, though the ethnographic approach enables a holistic view of the findings, which sheds new light on three key concepts, empowerment, NFE and the digital divide. This chapter indicates that this study provides evidence to extend the concept of NFE to include a

range of information provision activities. It clarifies the importance of inter-relationships among and between factors in Kabeer's (1999) empowerment framework, demonstrating that agency is not always the most influential element of the framework. Thirdly, it demonstrates the importance of considering the digital divide as a complex phenomenon, whereby the social norms and behaviours in a community may be a greater deterrent to involvement in online activities than access to the technology itself or specific skills in using the technology.

Chapter 7 – Conclusion: In this final chapter, the findings of the study are summarised, and their contributions to the development of new knowledge are presented. The implications of the findings for the practices of NGOs in Nigeria are considered. Finally, the limitations of the current study are presented, and possibilities for future research are suggested.

Within the women's empowerment sphere, NGOs are perceived as playing an important role. This study shows that the programmes organised by NGO empower the participants. The aim of NGOs to improve the standard of living of women via empowerment programmes is in line with the participant's purpose for attending such programmes.

Despite the potential advantages of empowerment programmes, the programme investigated in the present work was limited to participants with formal education who had at least basic technology skills. The selection criteria, the requirements of sponsors, and the perceptions of NGO staff meant that marginalised women were not allowed to participate in the investigated empowerment programme. Infrastructural problems, including access to electricity, undermined some efforts to develop skills. Despite the challenges posed by poor infrastructural facilities and poor commitment by the staff of the NGOs to engage fully with their social media, two NGOs used WhatsApp to support the learning process.

CHAPTER TWO

CONTEXTUAL OVERVIEW OF NIGERIA

2.1 INTRODUCTION

This chapter outlines the social, economic, and political context of Nigeria. It begins with the geography, population, and economic resources of Nigeria, which are described to provide an overview of the general demography and ethnic differences found within the country. I argue that patriarchy constitutes both the social structure and values of the Nigerian society that define the status of women. I also discuss the status of women in the culture of Nigeria and how the patriarchal structure and the political instability in the country contribute to the low enrolment of women in formal education, and, thus, their sense of disempowerment.

2.2 GEOGRAPHY OF NIGERIA

Nigeria is multi-ethnic and culturally diverse. It consists of 36 independent states and 774 local government areas comprising 374 ethnic groups. The most common languages spoken in Nigeria are Igbo, Yoruba, and Hausa, while the official language is English (Ottuh, 2019). Abuja is the capital of Nigeria, while its largest city is Lagos. The country has an estimated population of 190.9 million people as of 2017 (Okon, 2018) and 200.6 million as of 2019 (Table 1). Nigeria has one of the largest youth populations in the world and accounts for 47% of West Africa's population. More than 62% of Nigeria's population is below 25 years of age, and its growing middle class makes up 23% of the population. Nigeria shares borders with the Gulf of Guinea to the south, Cameroon to the East, the Republics of Benin and Niger to the west, and Niger and Chad to the north. Nigeria has a size of 923,768.64 square kilometres (Adepoju et al., 2018). Nigeria is rich in resources, making the country Africa's second-largest economy, and it is Africa's biggest oil exporter, producing the highest amounts of oil and gas in Africa. It also has the largest natural gas reserves on the continent (Okon, 2018).

Table 1: Statistics of Male to Female Population in Nigeria

Year	Male	Female
1960	22,530,196	22,607,616
2019	101,275,870	98,724,820

Source: Countryeconomy.com

Nigeria's population is increasing very rapidly; however, the distribution of social and economic resources is not on par with the population increase. Although the country is rich in natural resources, the majority of its people are poor (Omoniyi, 2018).

2.3 NIGERIA'S ECONOMY

The unstable nature of Nigeria's growth continually influences the cost of living in households in Nigeria. The fall of oil prices in mid-2014 awakened the government to the uncertainty of the oil sector. Consequently, the Nigerian government has been faced with the challenge of developing an institutional and policy framework to curb the unstable oil sector and support sustainable growth in the non-oil sector. Over the last two decades, this dependence on the oil sector and its instability have affected the overall wealth of the country (Agwu and Carter, 2014), resulting in high rates of poverty and unemployment, low literacy rates, and a high level of corruption among people in holding political offices, particularly in the political sphere (Akinola, 2018). These cultural factors, among others, contribute to the inequalities in the education, economic, political, and social lives of the masses (Agboti and Nnam, 2018).

The Nigerian business terrain is challenging but full of potential. While the political climate of the economy of Nigeria is friendly to investors, the state of the country's infrastructural development remains abysmal (Udejaja and Obi, 2015). Even though Nigeria fares better than other sub-Saharan countries in terms of business constraints, the distribution of electricity, access to funding and transportation, and inadequate infrastructures and institutions are the primary constraint of the country (Igwe et al., 2018).

2.4 SOCIO-POLITICAL TERRAIN OF NIGERIA

In the years since Nigeria's independence, efforts have been made to channel the nation's various languages and ethnicities, its 36 states, the ambivalence of the northern and southern geopolitical zones, and the Muslim and Christian religious stratification into one, cohesive nation; so far, though, these goals have proved elusive (Harnischfeger, 2019). Consequently, Nigeria has witnessed numerous internal conflicts as by-products of the colonial influence and are continually the bane of the nation's unending history of insecurity and underdevelopment that has not eased over the years (Onah, Diara, and Uroko, 2017).

The extensive domestic political animosity in Nigeria is triggered by the ethnic, social and cultural tensions within the country (Okpanachi, 2012). Politics and governance in Nigeria are rooted in ethnicity; as a result, the provision and distribution of basic social amenities and development infrastructures is a vehicle to advance the governments' political agendas and is not intended to be a response to the needs and wants of the people (Archibong, 2018). Subsequently, Nigeria reflects a system where major cities such as Abuja, Lagos, Port Harcourt and Kano (which are also the seats of political power for the ruling class) have undergone extensive social, industrial, and infrastructural developments to the detriment of other states (Ohale, 2018).

Ethnicity has eaten deep into the fabric of Nigerian society to the extent that even civic exercises carried out to ensure effective revenue collection and allocation (e.g., elections, population censuses, and data gathering) are politicised, ethnically charged, and misconstrued (Vinson, 2017). According to Amasiorah (2018), in a multi-ethnic and diversified Nigeria, these exercises pose a problem, particularly when carried out in an atmosphere laden with mutual ethnic distrust and animosity. As a direct consequence, the northern Muslim oligarchy of Nigeria claims political supremacy and maintains its sovereignty over the political terrain and, by extension, the economic domain in the north. As a result, the nation has been plunged into a financial limbo that is undiversified and controlled solely by oil and gas rather than in combination with agriculture and other economic activities (Wright and Okolo, 2018).

Attempts to reduce poverty in Nigeria have been adversely affected by the increasing inequality in income and opportunities (Mustapha, Said, and Sidique, 2015; Ibrahim, Ozdeser, and Cavusoglu, 2019). In addition, due to the diversity of the ethnic groups in Nigeria, efforts toward development have remained ineffective. According to Anyanwu (2019), this is because each ethnic group looks after their interests before considering the interests of the nation.

The majority of Nigeria's population, especially those in the northern zone, still live in poverty and do not have adequate access to essential services (Shaba et al., 2018). These people could benefit from more inclusive development policies (Alabi, Raheem, and Bako, 2018). The high levels of poverty and disparity in this region, along with the overall social-political tumult in Nigeria, are a consequence of the lack of job opportunities in the northern region (Abiodun, Onafowora, and Ayo-Adeyekun, 2019). Nigeria is a traditionally patriarchal society, as noted above. The values and beliefs held by members of the nation are evidenced in their cultural practices that are inimical to women, persons with disabilities, and people from low-economic backgrounds (Isiugo-Abanihe and Fayehun, 2017; Bako and Syed, 2018; Eniola and Akinola, 2019).

According to the report by the Nigeria Demographic and Health Survey (2013), cultural practices that adversely influence women's enrolment and progress in education are early marriage, childbearing, economic instability, and heavy household burdens, which reflect the gender inequality within Nigeria's socio-economic and diverse ethnic and cultural traditional practices (Okorie, 2017; Okafor et al., 2018). Some cultural practices reflect the belief that the identity of women are found in men (Bako and Syed, 2018; Eniola and Akinola, 2019), leading to the inequality of women and girls in terms of their education, economic empowerment, and political participation (Stuart, Gény, and Abdulkadri, 2018).

Researchers such as Okorie (2017) and Okafor et al. (2018) argue that poverty and economic factors complement cultural practices in creating social exclusion in education. Similarly, a report by the United Nations Development Programme (UNDP) (2015) shows that children from families in the lower strata of society in developing

countries are four times more likely to be out of school than children from the upper echelon of society.

2.5 THE NATIONAL POLICY ON EDUCATION (NPE) AND THE EDUCATION LAWS OF THE SCHOOL REPUBLIC (1977- UNTIL DATE).

The NPE (established in 1977) was the first educational policy to be enacted by Nigeria's government after the country had gained its independence in 1960. The purpose of the policy was to address the development needs of the Nigerian people, promote national unity, achieve self-reliance, and provide the basis for national integration via education. The federal government had to take over the responsibilities related to controlling and funding education in Nigeria (Odukoya, Bowalen, and Okunlola, 2018).

After the first military rule that lasted for 13 years (1966-1979) in Nigeria, the second republic followed, beginning in 1979, taking on a presidential government system. A new constitution was enacted by the then-president of Nigeria Shehu Shagari, which served as an educational policy and led to a second attempt at democratic governance in Nigeria (Wright and Okolo, 2018). According to Okafor (2017) and Amakiri and Igani (2015), the provision of education set out in the constitution was intended to guide government policy to ensure equitable access to educational opportunities at all levels. With the provision of free, compulsory, and universal primary and secondary education, as well as an adult literacy programme when possible. The promotion of science and technology was also a goal.

In 1979, responsibility for the provision of programs of education was complex. The three tiers of government (federal, state, and local) were responsible for education, which was to be a priority for new laws and regulations (Daura and Audu, 2015), although the federal government had more control over the post-primary, professional, technological and university education than the states and local governments. However, the administration of all forms of education within a state was left under the control of that state's government. An example of this is evidenced when the control of primary education was given to the local government council of the Ogun and Bendel states. The administration of primary education was the joint responsibility of state and local

governments, though the local governments had the sole responsibility of paying the salaries of teachers.

In 1981, per the provision of education outlined in the 1979 constitution, the NPE of 1977 was revised for a second time. The 1981 revision recognised the importance of language in promoting national unity and preserving the nation's cultural heritage. Hence, every child was required to learn one of the three major languages of Nigeria (Igbo, Yoruba, or Hausa).

A significant purpose of the reviewed educational policy of 1981 was to make universal primary education (UPE) compulsory (Michael and Wumi, 2017). Hence, the government reintroduced the UPE policy that provided free education to disadvantaged states – especially the Northern states – to encourage enrolment. Even with the reintroduction of the UPE policy, the government did not make primary education compulsory, and therefore, the Quranic education system operated simultaneously with the national educational system and continued to thrive in Northern Nigeria (Okafor, 2017).

On the other hand, because the UPE had already been in existence in the southern states since the 1950s, it was normal for students to enrol in schools, though the building of classrooms and teachers' training at the primary-school level were less prevalent (Imam, 2012). Unfortunately, in September 1981, the UPE programme ended because the state and local governments assumed responsibility for funding primary education due to an unexpected decline in Nigeria's revenue (Michael and Wumi, 2017). Consequently, there was a decline in Nigeria's literacy rate because teachers were not paid their wages. This situation led to the degradation of educational infrastructures at all levels and strikes within educational institutions (Michael and Wumi, 2017).

In 1983, the military government overthrew the government of President Shehu Shagari (Osaghae, 2018). After this change in government, an edict was passed in 1986 that focused on specific issues that would change in the school calendar (a January-December calendar was implemented) from 1988 through 1999. In addition, the edict forbade and cancelled the barring of the Academic Staff Union of Universities (ASUU) (Okafor, 2017).

To ensure the policy applied to the developmental needs of Nigeria, the NPE was subsequently reviewed in 1998, 2004, and 2007. The 1998 revision introduced a compulsory Universal Basic Education (UBE) programme for all children in Nigeria for nine years of continuous education (six years of primary education and three years of junior secondary education). In 1998, the NPE review introduced the 6-3-3-4 system of education (six years of primary education, three years of junior secondary education, three years of senior secondary education, and four years of post-secondary education) to replace the 6-5-4 (six years of primary education, three years of secondary education, and four years of post-secondary education) system. The revised NPE was designed to encourage vocational education in Nigeria to produce more effective and skilful citizens (Okafor, 2017). Therefore, in 1999, to achieve equal educational opportunities and eliminate illiteracy, the Nigerian federal government implemented the UBE programme, which replaced the UPE. Though the policy prescribed a compulsory UBE, the enforcement of the programme was not effective (Okafor, 2017).

In 2004, the NPE was reviewed again in an attempt to increase the effectiveness of the Nigerian education system. The reviewed NPE laid a firm basis for the 6-3-3-4 educational system. Importantly for this study, it stipulated the roles of adult, non-formal, open, and distance forms of education. The policy also made provisions for a versatile curriculum to provide learning opportunities for all children regardless of their sex, background, or abilities (Osarenren-Osaghae and Irabor, 2018).

The execution of the education sector reform began in 2006 when vital initiatives were undertaken to address the needs of inclusive education policies. These policies include the National Policy on HIV and AIDS for the Education Sector, the National Policy for Integrated Early Childhood Development, the National Policy on Gender in Basic Education, the Guidelines for the Identification of Gifted Children, and the Implementation Plan for Special Needs Education Strategy (Daniel-Kalio, 2018).

When the NPE was under review from 2004 to 2007, the National Policy on Gender in Education was put in place. This policy was enacted in 2006 to compliment the NPE and other policies on education. One of the principles of this policy is to provide all Nigerians – especially girls –with adequate information to ensure the enrolment, retention, and

completion of basic education. The policy also aims to provide equal access to NFE in Nigeria and to integrate affirmative actions in favour of marginalised groups. This is done to ensure gender equity in terms of the delivery of basic education and the promotion of gender sensitivity at all levels per the NPE, Education for All (EFA), and MDG targets.

The 2004 NPE was revised in 2007 to integrate various innovative policies, which reflected the government's commitment to execute international agreements, such as the Education For All (EFA), United Nations Millennium Goals (MDGs), the home-grown medium-term development plan, and the National Government Empowerment and Development Strategy (NEEDS) (UNESCO, as cited in Daniel-Kalio, 2018). In the wake of these changes, the NPE was reviewed again in 2013 to determine whether it was meeting the developmental needs of Nigeria. This review was necessitated by the significant changes in the socio-economic and political structure of the country (Yaro, Arshad, and Salleh, 2016).

Then-president of Nigeria Dr Goodluck Ebere Jonathan initiated the transformation agenda programme in 2011 with the goals of developing human capital, promoting the government's NEEDS strategy, and integrating its gains into the nation (Adibe, Jude, and Ijeoma, 2017). In 2009, the federal ministry of education prepared an initial blueprint for the development of the education system to meet criteria for human capital development. After that, a one-year (May 2010-April 2011) plan and a four-year (2011-2015) plan were implemented to develop the education sector (Sanubi and Akpotu, 2015). In 2014, the NPE was reviewed once again to consolidate recent innovations within the context of the transformation agenda (Stephen, 2016).

The aim of the 2014 NPE was to make education a viable instrument for empowering poor and marginalised groups by creating an effective measure of fostering human resources capabilities by developing a competent workforce through the acquisition of practical skills relevant to the 21st century (Okon and Israel, 2016). The focus of the revised NPE was to develop every child in Nigeria through access to quality education based on the economic needs of Nigeria. This version of the NPE ensured basic education for all by making it compulsory for all government schools to offer free education to all children of school age in Nigeria (Okon and Israel, 2016). Also, every

child who attended public primary and secondary school was to receive basic health services and a free balanced meal every day per the Home Grown School Feeding and Health programme (HGSFHP) (Daniel-Kalio, 2018).

The FME implemented the Economic Recovery and Growth Plan (ERGP) in 2017. The plan seeks to diversify the economy through the development of priority sectors like education. The plan is a response to recent global economic shifts driven by the growth of ICT and the digital revolution, which has created a need to improve the skills of young graduates to help them adapt to the new demands of the international labour market. Among the aim of the ERGP is to achieve universal enrolment in primary and secondary schools, provide annual bursaries to 100,000 eligible science, technology, engineering and mathematics (STEM) undergraduates, launch post-university skills development institutions, and prioritise women's education by constructing special schools in 13 states and starting day and boarding schools to serve girls (NIPC, 2019).

In 2018, the Nigerian the federal ministry of education established and extended its goal to expand access to – and improve the quality of – the education system through the Ministerial Strategic Plan (MSP) 2018-2022. The MSP is built on 10 pillars, which include out-of-school children and adult literacy. The objectives of the MSP include universal access to basic education for all school-aged children and 75% access to informal schooling and lifelong learning opportunities for adults (UNESCO, 2020).

2.6 ICT POLICY IN NIGERIA

Another set of policies relevant to this study relates to ICT. Information communication and technology are becoming the most extensive circulating channels that provide public and private services to rural and poor communities. Recognising the potential of ICT to aid national development and diversification, the Nigerian Government outlined a blueprint for its National ICT policy in 2012, aimed to promote a “knowledge-based globally competitive society” by 2020 (Adelowo, Akinwale, and Olaopa, 2017). To achieve this objective, the draft policy provides 16 policy focus areas, including infrastructure development, broadband access, spectrum management, regional collaboration, universal access, research, national security, software, hardware, and

local manufacturing. This policy depicts that the Nigerian Government is prepared to make Nigeria's an information-based economy.

Despite this ambitious policy focusing on the technical aspects of ICT, the knowledge of ICT and its use are not mentioned in the goals of primary education. The goals of primary education are more basic, placing emphasis on increasing access to basic education, eradicating the prevalent unequal rates in student enrolment between urban and rural people, ensuring a reduction in the rate of school dropout, and long-term literacy for students who have completed the programme. Even though knowledge of ICT is not included as one of the objectives of primary education, it is apparent that the Nigerian Government is committed to addressing related problems through its new policies and programmes in the telecommunications and ICT sectors (Lawal, Chatwin and Hasan, 2018).

Although these policies have been instigated, the government has not been able to achieve its goals. One of the reasons for this, according to Ojo (2016), is that investments in ICTs' infrastructures do not have high immediate political rewards when compared to the urgent basic needs of the people, such as the needs for food and housing. Hence, politically, there are comparatively minimal benefits to be gained from investing in ICT. Therefore, it is not considered expedient to devote relevant institutional and financial resources to ICT development.

2.7 GENDER NORMS IN NIGERIA

Culture directs the entirety of a society's way of life, including their beliefs and customs. Okorodudu (2017) submits that the composition of culture transforms society and influences people's way of life by altering their values, festivals, traditions, food, beliefs, and social memories, which are transferred from one generation to another (as cited in Ejukonemu, 2018). In addition, he notes that culture is entrenched into the spirit, soul, and body of an individual, which is also reflected in how the individual behaves regardless of their level of education. Culture serves as a means to identify a group of people by their mode of dressing. Integrating culture into development helps to shape the future; hence, culture plays a significant role in ensuring that future generations

have quality and inclusive education so that they can build sustainable communities and improve economic growth in creative and cultural industries (Okorodudu, 2017).

Culture distinguishes people from each other. In Nigeria, for instance, there are people from diverse ethnic and cultural backgrounds who speak different languages and have different cultural beliefs that date back over 700 years. Nigerians value and celebrate the multi-ethnicity and unity of the nation amid its diversity; this characteristic has been passed down through several generations (Folarin, Olanrewaju, and Ajayi, 2016). Scholars (e.g., Ejukonemu, 2018) opine that the determining factors of gender differences in Nigeria are culture and society, which influence the division of labour and prescribe the social, economic, and political opportunities women enjoy in societies, which do not compare to those of men.

The concept of gender roles and differences establishes not only a biological distinction between males and females (Tolman, Davis, and Bowman, 2016) but also creates a social system that places little value on women because of their maternal functions (Lind, 2018). The government, society, and family contribute to the maintenance of the status quo by allocating few resources to the development of women. This condition is evidenced in reports that show the inequalities between genders in all the spheres of life (Grusky, 2018). According to Grusky (2018), among the factors that influence gender differentiation are ethnicity, caste, and class, which determine one's accessibility to resources and opportunities. In addition, because women are laden with domestic work, they do not have enough time to participate in politics (Sheikh et al., 2018). In northern Nigeria, cultural values and practices, such as purdah, constrain women's mobility, thus limiting their participation in the political sphere (Badejo et al., 2017).

Regarding the economic sector, cultural beliefs have limited the growth of women-owned businesses, which are often overlooked because of women's generally low social status. This situation is especially prevalent in rural areas, where the rate of gender stereotyping is high. Because men are perceived as being strong and courageous, running a business is considered a masculine pursuit due to the level of risk and time involved in managing a business (Boateng, 2018). This perception discourages women from establishing businesses at a young age. As such, women tend to start a business

later than men do. They usually wait until after they have had children to start a business because society expects the woman to stay at home and care for the children (Igwe et al., 2018; Glenn, Chang, and Forcey, 2016).

In exceptional cases where women have the opportunity to attain employment, they are expected to assume less demanding roles than men, as they have to balance their domestic functions with their jobs (Umemezia and Osifo, 2018). According to Coquery-Vidrovitch (2018), time constraints on women business owners limit their access to business training and women's organisations. Additional cultural practices that constrain women in business include their inequitable access to property and land ownership, sexism, discrimination, and sexual harassment (Umemezia and Osifo, 2018; Bako and Syed, 2018; Chigbu, 2019).

2.8 OVERVIEW OF WOMEN'S EDUCATION IN NIGERIA

There is a belief that education is an instrument that breaks the hold of poverty, thereby leading to transformation, development, and progress (George et al., 2018). Women and girls are constrained by their daily domestic work, which stops them from experiencing the economic and social empowerment that could be obtained by attending formal education programmes or participating in productive and civic activities (Okorie, 2017). As a result, the issue of poverty is prominent among the female population in Nigeria due to the disparities in educational opportunities (Buba et al., 2018). For example, in a traditional Nigerian society, the girl child is expected to ensure that all the household chores are completed before she can engage in any other activities. Her chores range from tidying up the house, doing the dishes, fetching water, preparing food for the family, to doing the laundry, and in some instances, hawking wares for sale. These chores burden the girl child; in many cases, either she does not finish her chores in time to go to school, or she is discouraged from going to school because she is too tired.

In Nigeria, the are educational facilities inadequate, and access to these facilities is limited for many people, especially girls and women (Olatokun, 2017; Williams, Becky, and Theophilus, 2018). According to the United Nations Human Development Report (2005), with respect to equality in educational accessibility, Nigeria is a low-

development country. The burden on education has become overwhelming as children under 15 years of age account for 45% of the population of over 190 million. There has been an increase in the enrolment of children in primary schools in recent years; nevertheless, net attendance is only 70%, and more children drop out of school in Nigeria (10.5 million) than any other country in the world. Sixty per cent of Nigeria's out-of-school children live in Northern Nigeria, and most of the country's out-of-school children are female. Girls who enrol in school usually drop out during the early stages due to their poor perception of education and early marriages (UNICEF, 2018). Inadequate access to education has been a prominent and longstanding hindrance to women's engagement in the public sector.

Okorie (2017) succinctly states that the primary factors that account for the high illiteracy rate among women in Nigeria include, but are not limited to, the social pressures put on females, such as early marriages and teenage pregnancy, the higher value of male education than female education, and inhibitive religious practices in some parts of Nigeria. These factors contribute to the inequitable access to education, especially in the northern part of Nigeria, where these practices are still highly prevalent. There is an existing gender stereotype within school curricula and the academic streaming process; subjects such as the sciences, mathematics, and technology are dubbed masculine, while arts and the social sciences are labelled feminine. Because of this, both sexes are denied the opportunity to benefit from the versatility of all subjects (Cherualath, 2018; Usman, 2018).

Inadequate access to education remains one of the leading barriers limiting the development of women (Okafor and Akokuwebe, 2015). Education involves disseminating knowledge in people. It encompasses the way knowledge is imparted, necessary skills are developed, and faculties are trained (Hirsch, 2019). The transfer of knowledge and wisdom from one generation to another is possible via education, and this knowledge allows individuals to be critical thinkers by freeing their minds (Manga and Mera, 2016). Education enables women to take advantage of opportunities that are relevant to them in all areas affecting them. According to Okoye (2017) and Aja-Okorie (2013), education equips individuals with skills that help them improve their livelihood. Primarily, through education, the individual learns responsible behaviours, principles,

and practices that promote their healthy living and longevity, thereby reducing the rate of child mortality and malnutrition and allowing individuals to acquire the abilities that endow them with economic power (Okorie, 2017).

Roudi-Fahimi and Moghadam (2005) posit that women's engagement in the labour market and their input into the family and national wealth lead to increases in girls' secondary school enrolment (as cited in Moghadam, 2018). In other words, educated women are more likely to enrol their female children in school and to achieve higher levels of education (Ahmed and Iqbal, 2016; Princewill et al., 2017).

Education is not just about building new schools and providing places where the teachers, for most of the school period, use chalk, talk, drill students, and foster rote learning. Efforts should be made to provide an environment conducive for high-quality learning and education that is relevant to the recipient and the society (Day, Gu, and Sammons, 2016).

The idea that every citizen of any society should have access to affordable and practical education is not nascent (Ezeanya, 2015). Education is a service that should be available to all those who are qualified for and are willing to acquire it. This idea holds that the government should provide education for all (Amodu, Dokbisa, and Ahmed, 2016). The introduction of colonialism and Christianity into Nigeria may have made an already bad situation worse by disempowering the colonial ideology of "domesticity", which referred to women as homemakers and served to increase women's educational imbalance in parts of Africa (Chuku, 2018). However, Ejukonemu (2018) argues that the colonial system of education, whose primary aim was to provide for the workforce needs of the colonial government, is the basis of the inequality that has disqualified women from educational and economic opportunities. Nigerian women are significantly affected by poverty because of the lack of value placed on the education of women; the prominence of early marriage further leaves women destitute, which subjects them to statutory prejudice (Odidi, 2019).

However, emerging realities, especially since the 20th century, unveil the necessity for women's education and empowerment. Consequently, NGOs, as well as governmental organisations, have made efforts to bring the plight of women into the limelight (Hughes

et al., 2018). Over the years, international conferences have been organised by women to tackle issues that affect them. All these efforts have started yielding positive results as evidenced by the initiative of the Nigerian government towards ensuring that education is accessible to every individual. Since the 1980s, Nigeria's policy on education (NPE) has gradually adopted a more gender-neutral focus. The table below shows some of the strategic initiatives carried out by the Nigerian government to demonstrate their commitment to education equality.

Table 2: Key Milestones of Education in Nigeria

	Key Policy Initiative with a Gender Focus in Nigeria	Year
1	Blueprint on Women's Education	1986
2	Nomadic Education Programme	1986
3	National Commission for Mass Literacy and NFE	1991
4	Family Support Basic Education Programme	1994
5	Universal Basic Education	1999
6	National Policy on Women	2001
7	Education for All – Fast Track Initiative	2002
8	Strategy for Acceleration of Girl's Education in Nigeria	2003
9	National Economic Empowerment and Development Strategy	2004
10	Universal Basic Education Act	2004
11	National Policy on Gender in Basic Education	2006
12	National Policy on Education (Revised)	2012
13	Economic Recovery and Growth Plan	2017
14	Ministerial Strategic Plan	2018
15	National Policy on ICT in Education	2019

Source: Federal Ministry of Education

The Gender in Nigeria 2012 report shows that Nigeria ranks 118th out of 134 countries on the Gender Equality Index. The report also shows that there is a higher percentage of early school dropout among female students than male students. As shocking as these facts are, the most pressing concern is that the efforts of the government over the last 20 years to curtail the inequality in education have been fruitless (Aja-Okorie, 2013;

Babalola, 2018). Gender equality, thus, has not been achieved despite the initiatives that have been implemented, including those related to NFE.

2.9 NFE AS A STRATEGY FOR WOMEN'S DEVELOPMENT IN NIGERIA

NFE has been an essential part of the attempt to achieve gender equality in education. According to Menezes, Ovigli, and Colombo Jr (2018), NFE can refer to any educational activity organised outside the confines of the formal education system to educate a specific group in the population (adults, youth, or children). They also state that NFE encompasses in-service programmes, the apprenticeship system, worker and student technical training, continuing education, refresher courses, on-the-job training programmes, personal and professional development, adult education, and staff development programmes. NFE also comprises community development education programmes, including holiday programmes, rural development training, youth camps, mass mobilisation campaigns, community health sensitisation, and workforce resource training (Egbezor and Okanezi, 2008; Ololube and Egbezor, 2012).

NFE in Nigeria dates back to the formulation of the 1922 policy to provide adult education in the then-British colony. Fafunwa (1974) notes that in consideration of the adult population's needs, the Phelps-Stoke commission emphasised the need for a high literacy rate. However, the failure of the commission in 1951 prompted the central board of education to endorse a policy organising an alternative form of education for adults that emphasised basic adult literacy, the significance of the participation of women in adult education, and craft-making. The introduction of the free primary education scheme of 1955 and 1957 brought about a decrease in enthusiasm for continuing and NFE, as well as a reduction in government funding. Hence, the initial effort to promote adult education failed before it gained any momentum (Olaniyi, 2017; Olojede, 2017).

However, in 1977, the Nigerian school system adopted the Nigerian NPE (modified in 1981, 1984, and 2004), which emphasised non-formal and continuing education. NPE provides equal access to all forms of education, reduces illiteracy, and promotes lifelong education (Osarenren-Osaghae and Irabor, 2018). Assessments of literacy rates by the National Population Commission (NPC) (2006) and World Bank (2010) put Nigeria's

literacy rate at 56.5%, representing an increase of 6% over the 20 years from 1990 to 2010, and projected this rate to continue to rise to 62% by 2018 (NMDG Report, 2013, as cited in Olojede, 2017; World Bank, 2019). The literacy rate among women in urban areas in 2012 (87.0%) was higher than that of women in rural areas (56.6%), thus exhibiting a further increase. The discrepancy between urban and rural areas exists because the government of Nigeria focused on educational infrastructures in urban areas rather than in rural areas, as teachers prefer to reside in urban cities (where there are better opportunities and better pay). Because of the misperception of the government concerning adult education and national development, many government-owned adult education activities are suffering from a lack of funding and poor implementation (Olojede, 2017).

Adult and NFE programmes provide basic, functional, and post-literacy education for the marginalised and disadvantaged members of society (Ololube and Egbezor, 2012). Since adult education can be ongoing and lifelong, most developing countries use adult education to enhance literacy, improve professional proficiency, and develop communities (Kaye and Harry, 2018). Various states in Nigeria offer these programmes under the administration of the state bodies for public education, with open apprenticeship initiatives complementing the programmes with income-generating vocational skills aimed at eliminating poverty (Daura and Audu, 2015; Aderinoye, 2008). NGOs also help significantly in providing NFE programmes, especially those that are intended for women.

2.10 NGOs AND NFE IN NIGERIA

Mohanty (1991) rightly depicts the predicament of women in Nigeria in his book *Third World Women and the Politics of Feminism*, stating that women in Nigeria continually struggle in the aftermath of the colonial and imperial rule while fighting for different levels of involvement within their societies and their country (Boehmer, 2017). Although the coming of independence produced an expectation of liberation for all, the challenge in the social, economic, and political sectors of the nation made the government overlook the poor living conditions of the people, thereby subjecting them to a low quality of life (Buba et al., 2018).

Since Nigeria gained her independence, the government has attempted to establish development strategies to improve the quality of the standard of living of its citizens. However, despite the introduction of four development plans, there has been no signs of improvement in the living conditions of the people; rather, a steady decline in their standard of living has been observed (Adelekan, 2018). In a study, Ilesanmi and Kareem (2018), intended to address the lives and well-being of the people directly. However, there was no contribution from local government authorities towards the development plan. The urban-based officials who were responsible for the schemes were self-absorbed and uninformed about the needs of the rural dwellers; hence, they overlooked their needs (Akhimien, Adamolekun, and Isiwale, 2017; Lucky, 2016).

Excluding rural areas significantly affects long- and short-term economic development, which determines the standard of living of all Nigerian population. The failure of the nation's development plans to mitigate the low standard of living of the people and amend spending priorities prompted local development projects to step in and cater to the needs of rural dwellers (Akhimien, Adamolekun, and Isiwale, 2017). The insular organisational style of Nigeria's government comprised national development plans and other development programs that targeted specific segments of the population to promote national development. Although the initial agenda for the development plans are for the masses, only a few benefits from the projects reach the grassroots to the detriment of the wider populace. Although various governments have made several efforts to execute development programmes specifically for women, these programmes failed because they lacked proper planning by urban officials and because the government was unstable and did not ensure the continuity of the programmes. Therefore, rural dwellers were crippled in regards to resource allocation, political development, and social welfare considerations (Okoye and FLEAD, 2016; Omoregie, 2015).

The public and government also described several types of bodies as NGOs. There is no approved definition for "NGO." Instead, the term conveys diverse meanings based on the situation (Aldashev and Navarra, 2018). Nevertheless, NGOs have emerged, claiming to represent the voices of the poor and marginalised vis-à-vis the state. They provide opportunities for political engagement and offer areas for community participation in

various sectors, such as the health sectors (Kleibl and Munck, 2017). NGOs continue to expand rapidly; this is especially the case in the international community and among government parastatals, which are organisations with some political authority working in service of the state. This growth signifies the ability of NGOs to reach the rural community and provides hope that these NGOs will assume some of the cost of providing necessary amenities to rural communities. Researchers argue that NGOs provide more humanitarian aid and services than all the United Nations organisations (UNOs) combined and have distributed more financial resources than the World Bank (Kim, 2016; Bendell, 2017).

The roles of NGOs in women's emancipation and in ensuring that women are actively involved in the development process cannot be overemphasised. Scholars submit that the potential for women to participate in the development of their communities is equated with the degree to which they are involved in all levels of the decision-making process (Dutt, Grabe, and Castro, 2016; Ewerling et al., 2017). The primary focus of NGOs – especially women's NGOs (WNGOs) – is the emancipation of women and girls, the improvement of the quality of their living conditions, and the fight against gender inequality. To meet their aims, WNGOs organise and fund development projects for women. In addition, to improve the sustainable livelihood of the people, NGOs encourage women to get involved in the development of human capabilities. In other words, the primary focus of WNGOs is to encourage women to improve their means of livelihood via collective action rather than relying on the government to solve their problems (Alexander and Welzel, 2015).

The ability of women to form independent groups for specific purposes has confounded people who thought that women could not achieve this (Ijere and Mbanasor, 1998). Many NGOs that operate in Nigeria are involved in various activities. These NGOs can reach out to women through pre-existing associations, for example, the Market Women Association (Badejo et al., 2017). This is because working with the existing group – especially in the case of Nigeria, where the culture of respect is dominant, as is respect of hierarchies and traditional leadership– WNGOs can gain legitimacy. In addition, working with local groups enables women to acquire the knowledge and experience that will enable them to actively contribute to the development of their society. Working

with local organisations also enables NGOs to gain insights about what their beneficiaries think of their socio-economic empowerment programmes.

In Nigeria, NGOs have been instrumental not only for financing NFE but also providing NFE to women, girls, and other marginalised groups in Nigeria.

2.11 NFE AND THE IMPORTANCE OF ICTs

Ajadi, Salawu, and Adeoye, (2008) (as reinforced by Nwobi et al. (2016)), state that there are many reasons for the integration of ICT into adult and NFE programmes apart from the need to embrace new technologies. Firstly, most Nigerians live below the poverty threshold, thereby preventing them from attending institutions in urban areas; hence, they remain excluded from education. Secondly, people who got a job without finishing their education because of family commitments find it challenging to combine their education and the demands of their work. Thirdly, the cultural values related to early marriage and religious beliefs in Nigeria exclude women from education. In addition, physical disabilities and expensive school fees for privately owned institutions deprive the majority of Nigerians of education.

2.12 CHAPTER SUMMARY

This overview of the Nigerian context introduces general and specific features of Nigerian society, including details about the demographic, economic, political, and social structures of the nation and their implications on the status of women in Nigeria. It also provides overviews of women's education in Nigeria and the education policy after Nigeria gained her independence. The latter part of the chapter discussed the role of NGOs in Nigeria, the emergence of digital technology in Nigeria, Nigeria's ICT policy, and the impact of poor infrastructure on the use of digital technology for NFE in Nigeria. The following chapter discusses the theoretical framework and literature of this study. It also situates this study in the global context as it relates to the use of digital technologies in NFE.

CHAPTER THREE

THEORETICAL FRAMEWORK AND LITERATURE REVIEW

3.1 INTRODUCTION

The approach adopted in this study combines feminist theory, empowerment theory, and education empowerment theory. Together, these theories challenge patriarchal ideology and the digital divide to improve the status of women in society. In the patriarchal context, the distribution of power is to the advantage of men over women because of the higher social status given to men. In the context of the digital divide, those who are disadvantaged or marginalised in a society will be further marginalised as that society moves into the use of digital technologies. As patriarchy and the digital divide limit the options available to women, women's advancement is not possible within established structures. These theories also focus on marginalisation. Although the focus of feminist theory is on gender while empowerment theory centres on social class, ethnicity and culture, both theories revolve around collective and individual identity.

In Nigeria, some factors limit the progress of women in education and the likelihood of their being considered for a job outside their domestic roles, expectations, and responsibilities. Tripathi and Singh (2018) and Sutherland (2018) submit that creating a balance between work and domestic responsibilities is a significant challenge for female workers. Thus, domestic obligations influence the education and career choices of women who often have excessive domestic functions.

This chapter reviews the literature in this field of study, as well as its implications for the present research. It begins with a brief consideration of the challenges to women's empowerment in Nigeria by patriarchy and the digital divide. It then reviews theories on women's empowerment and links this to NFE and the types of empowerment which can be enhanced through NFE. Next, it considers the use of information and communication technologies in NFE, setting out the challenges to be faced in countries such as Nigeria. Finally, it highlights the role of NGOs in women's empowerment.

3.2 CHALLENGES TO WOMEN'S EMPOWERMENT

In recent years, there has been significant progress in the socio-economy of Nigeria. The Nigerian Human Development Index value increased by 13.1% between 2005 and 2015 (Bako and Syed, 2018). Despite the progress in the economy, Nigeria is still plagued with developmental challenges, such as those related to creating indices for human development and improving the living conditions of the people (Kalu and Falola, 2019; Dibia, 2018).

Plagued by poverty and cultural and social norms in Nigeria, women, the poor, people with disabilities and socially marginalised groups face discrimination in educational provision (Okorie, 2017; Okafor et al., 2018). Thus, there is significant potential for the empowerment of women. One of the pathways put forward by technology optimists is the potential of technology to empower women. Several studies have probed the position that ICTs play in addressing gender disparities in education and literacy in developing countries. The findings of Nyemba-Mudenda and Chigona (2017) can be summarized into different problems stemming from the digital divide and digital illiteracy. These problems are outlined in the following subsections.

3.2.1 Patriarchy

Patriarchy is a long-standing tradition in Nigerian society, whereby the basis of social classification and distinction is sex. In a patriarchal society, there are distinct sex roles, with the male having more significance in society while females are constrained to domestic roles. In such societies, several prohibitions ensure adherence with specified gender roles (Aina, 1998, as cited in Pogoson, 2018).

Patriarchy legitimises the exclusion of women in all spheres of life and society (Pogoson, 2018). Over the past 20 years, patriarchy has been reconstructed to analyse the genesis and conditions of men's oppression of women (Ndupu and Akwara, 2016). Initially, patriarchy was used to define the authority of men as the head of the family. According to the post-1960s feminist, patriarchy is a biased social system that oppresses women by promoting male supremacy and female subordination; it includes all the channels that propagate and exercise males' dominance over women, which society can overcome by exposing and critically analysing how it operates (Hartmann, 2018;

Pogoson, 2018). To Hartmann (2018), a patriarchal system is a set of social relations that has its foundation in material (economic) resources and enables men to dominate women. This type of domination consistently prevents women from accessing beneficial economic resources and restricts women's sexuality.

In a patriarchal culture, men are seen as the keepers of the family name and lineage, while women (once married) are seen as having joined the family of their husband. If a woman gets married and is not able to produce a male son, she is not regarded as a member of the family or even as her husband's wife. As Urama puts the pressure is even greater for a woman who is married to the first son of a family because the relatives will always suggest that the man gets a second wife who will give them a male child to keep the family name alive (Urama, 2019). Hence, men receive training for leadership roles, while women are relegated to domestic functions that influence them in the future, especially when they are excluded from educational opportunities. As a result, they begin to form negative images of themselves and think negatively about their value in society (Oderinde and Adenugba, 2017; Oniye, 2010).

The compelling economic and social justifications for investing in male education rather than female education further contribute to gender disparity, as girls are considered less valuable once educated and are likely to rebel against their fathers, brothers, or husbands. The norm in Nigerian society has been that men do not get involved in any form of domestic work, including child rearing, which is a function society believes to be for women (Gardiner and Fulfer, 2017).

Researchers have observed that the value of women in Nigeria has degenerated to that of an infidel or a second-class citizen (Oriola and Akinola, 2018). For example, during his visit to Germany, while standing beside the German chancellor Angela Merkel (a woman), President Muhammadu Buhari of Nigeria, said on an International broadcast that his wife belonged to his kitchen, living room and the "other" room, referring to the bedroom (CNN, 2016). There is a common belief in Nigeria that the woman's place is in the kitchen. As a result, women have been misrepresented in the family and in society, which has led to their inequitable access to formal education. Instead, they are forced into marriages and to perform street hawking. Therefore, Oriola and Akinola (2018)

submit that the relegation of women as inferior in society is a consequence of the status of insignificance associated to women by society.

Patriarchy sets the tone for women's structurally unequal position in society by allowing different conditions for inheritance rights and legal adulthood, sexual and domestic violence, and disparity in wages for equal work (Aluko, 2015; Pogoso, 2018; Amusan and Akokuwebe, 2016). In traditional patriarchy, women do not have the right to property, nor do they have access to credit and land reform programs. Additionally, women are excluded from well-paid jobs and are restricted to low-paid jobs, establishing a male-oriented market system that encourages harassment (Zakuan and Hassan, 2016; Jolaade and Abiola, 2016), which further discourages women.

Patriarchy is a dominant system that limits the empowerment of women (Habiba, Ali, and Ashfaq, 2016). Researchers such as Aluko (2015) submit that men are defensive of any socioeconomic factors that improve women's access to income; as such factors are believed to oppose gender norms (Chisale, 2017). In Nigeria, owning and using ICT is considered the male's domain. Technologies such as radio are assumed masculine (Drury, 2016; Elsbach and Stigliani, 2018). The reason for this is that before the proliferation of digital technologies, men were always the ones entitled to buy technologies such as radios and televisions to keep abreast of what was happening; it was rare to see a woman owning these devices, let alone listening to the news or other programmes. In addition to a lack of an income source and the high cost of maintaining mobile technologies, low purchasing power prevents rural women from accessing and utilising digital technologies (Seedhouse, Johnson, and Newbery, 2016; Forenbacher, Husnjak, and Cvitić, 2017).

According to Njeru (2009), the use of mobile technologies is also influenced by interpersonal relationships. Jealous husbands or boyfriends have access to their partners' devices and usually monitor their communication. This significantly limits women's opportunities to seek empowerment programmes for fear of being reprimanded by the male figures in their families. In a household, women make significant compromises to ensure they keep the peace in the family because any disagreement – even with regard to mobile technology use – could put a dent in the

home. Hence, women are willing to let go of their careers to save their relationships (Eze, 2017; Sandberg, 2015). Females are responsible for the domestic work in the family; in instances where they do work or own a business, it is to support the family. In between caring for the family and working to support the family, these women do not have time for professional development (Ocholi and Ocholi, 2017). In their study on women's income generation through the mobile Internet in Ghana, Kenya, and Uganda, Bailur and Masiero (2017) observed that women have an apathetic attitude toward online learning due to cultural stereotypes.

As previously discussed, traditions and cultural values have a significant influence on gender role differentiation and discrimination; thus, they also influence women's empowerment. However, in recent times, because of the clamour for gender equality and the rise of women's NGOs, significant achievements and improvements have been made regarding the status of Nigerian women, though the divide in gender roles between men and women is still poor according to global expectations (Nwankwo, 2018; Ejukonemu, 2018).

3.2.2 Digital Divide

"Digital divide" is a term that denotes unequal access to and use of ICT by individuals to address personal and societal problems (Desta, 2018; Nobert Wildermuth, as cited in Ragnedda, Mutsvairo, and Goggin, 2018). Social and physical barriers result in unequal access to ICT, from the inaccessibility of digital technologies to the inadequate power supply needed to use digital technologies (Ercikan, Asil, and Grover, 2018). The digital divide is a global phenomenon as well as a local one. Drori (2010) states that within a nation, gender, wealth, education, race, and minority designation influence the digital divide, which also follows the lines of gender and wealth. Between countries, causes of the digital divide include each nation's wealth, literacy rate, and form of government.

Ragnedda and Ruiu (2017) proposed that the digital divide is a complex phenomenon comprising three levels. The first level is related to the availability and accessibility of digital technology. The second level deals with the issue of the skills and knowledge required to use technology. The third level has to do with the issue of the benefits that people feel that they can derive from digital technology, which is influenced by social

capital. According to Ragnedda and Ruiu, social capital influences relational power, which reflects the benefits derived from the cultural, economic, and political relations that an individual possesses.

The older generation, people with lower levels of education and income, and people who reside in rural areas with poor infrastructure coverage are affected most strongly by this divide (van Deursen and van Dijk, 2019; Cruz-Jesus, Oliveira, and Bacao, 2018; Hargittai, Piper, and Morris, 2018). In Nigeria, this class of people also includes women. The major thrust of the digital divide is not confined to the availability and accessibility of technologies; emphasis is also placed on whether the individuals possess the relevant expertise to use the technologies effectively (van Deursen and van Dijk, 2018; Scheerder, van Deursen, and van Dijk, 2017). Moreover, Scheerder, van Deursen and van Dijk (2017) argue that the ability and the availability of temporal, material, mental, social, and cultural resources – as well as personal factors such as age, gender, ethnicity, intelligence, personality, and health – influence an individual's access to ICT.

The affordability of digital technology is another factor worth considering. The cost of a data plan is usually associated with mobile technology. Having a smartphone does not mean the owner can afford to subscribe to an unlimited data plan, and in Nigeria, the successful use of mobile technologies can be hindered by poor reception (Ghebregiorgis and Mihreteab, 2018; Agwu and Murray, 2015).

The process of socialisation in the era of the digital revolution requires access to (and the ability to use) new technologies effectively. It has been said that digital exclusion is a new form of social exclusion (Serrano-Cinca, Muñoz-Soro, and Brusca, 2018; Essien, 2018). Tech-savvy individuals will outpace people with limited access to technologies (Badran, 2018; Dutton and Reisdorf, 2019; Oluwatayo and Ayodeji, 2017), whereas novice Internet users face psychological, social, economic, and racial obstacles (Cruz-Jesus, Oliveira, and Bacao, 2018; Wang, Chen, and Chen, 2017). These users are not satisfied with their Internet ICT skills, making them uncomfortable with using digital technologies, which, in turn, causes them to encounter stress-inducing problems (Nimrod, 2018). According to Elliott (2019), because of the notion that ICTs are complex, new users are uncertain about how to use digital technologies.

As the years go by, the rural and urban divide in terms of the quality of data infrastructure increases, while the ever-changing market developments foil public policies that aim to improve the availability of data infrastructures. The low circulation of digital technologies and low literacy skills impede rural dwellers' adoption and use of technologies. Therefore, public policies need to be cognisant of the specific needs of rural dwellers since they are often left out and are the least connected to ICT infrastructural development (Salemink, Strijker, and Bosworth, 2017; Buzzetto-Hollywood, Elobaid, and Elobeid, 2018; Noberth Widermuth, as cited in Ragnedda et al., 2018).

Due to the proliferation of educational technologies, the digital divide applies not only to access but also to the knowledge of how to use digital technologies effectively, which remains a significant challenge (Paiva et al., 2016; Hillier, 2018; Hargittai, Piper, and Morris, 2018). Researchers have stated that to overcome this challenge, it is pertinent for instructors to establish a collaborative learning environment that allows learners to work together to create and share content. This will invariably increase their use of various forms of technology, improve their electronic learning (eLearning) experience, and encourage self-directed and life-long learning (Singh, 2017; Clark and Mayer, 2016). Creating an online community where learners can work together without being disrespected will help bridge the divide and establish a culture of digital natives suitable for efficient eLearning (Clark and Mayer, 2016; Bender and Hill, 2016). Naturally, learners have different competencies and abilities, and so instructors must be aware of their students regardless of their skill level, as doing so enables learners to set their own goals and expected performance objectives (Cordie, Witte, and Witte, 2018; Bender and Hill, 2016).

It is against this backdrop that I examine the concept of women's empowerment in conjunction with NFE with the aid of digital technology.

3.3 CONCEPTUALISING WOMEN'S EMPOWERMENT

The concept of women's empowerment was developed in the 1980s and became extensively used in the development field to advocate for the improvement of women's status (Batliwala, 2007, as cited in Zafar, 2016; Calvès, 2009). However, it was not until

after the 1995 Fourth World Conference on Women in Beijing that the concept of women's empowerment gained prominence. The Beijing conference focused on empowering and advancing women by ensuring that they participate fully in the decision-making processes that affect every area of their lives (e.g., decisions related to education, health, economy, social well-being, violence against women, equal access, and equal decision-making power). This is believed to be the basis for women's equality and development (Zafar, 2016). The Beijing conference stressed the significance of women's participation in socio-economic activities and the need for policies and programmes that empower women as essential parts of eliminating poverty because gender equality is significant to achieving sustainable MDGs. To achieve gender equality, the UN member states agreed to provide primary education to women and to expand their economic opportunities and political representation (Seeberg et al., 2017).

Although the concept of women's empowerment dominates the development literature, scholars have not agreed on the meaning of empowerment (Prügl, 2017). Neoliberals attempt to define the concept practically as a "means to an end" to ensure that women participate in the development of a nation (Wilson, 2015; Goldman, Davis, and Little, 2016). Meanwhile, the position of postmodernists and post-colonialists on empowerment is that it is an instrument for women – specifically rural dwellers – to be actively involved in the decision-making and development process of their societies (Struckman, 2018). In this context, empowerment is significant because to influence change, people with little power need to be able to think critically to determine a probable solution to a problem and to act according to the available options (Freire, 1972; Gigler, 2004; Poveda, 2016).

Empowerment, according to Rowland (1997), is the process disadvantaged people go through to gain an awareness of the forces that influence their lives. Consequently allowing them to develop the proficiency needed for them to control their lives judiciously and to exercise their authority without violating other people's rights while supporting the empowerment of other members of the community. Based on the definition, empowerment goes beyond giving access to decision-making; it also includes processes that lead individuals to recognise that they can occupy that decision space (Kabeer, 2005). According to Huis et al. (2017), empowerment is achieved when a

powerless individual gains power. The available definitions of “empowerment” stress the importance of increasing women’s opportunities to make decisions (Budgeon, 2015; Kurtiş et al., 2016). However, previous studies negate the assumption that exercising the right to make decisions proves that women are empowered because women’s choices have already been predetermined structurally and historically (Budgeon, 2015).

Two other schools of thought that embrace the empowerment framework are feminist theory and education empowerment theory, which are described presently.

3.3.1 Feminist Theory

The premise of feminist theory, as it relates to education, is the notion that women’s lives are influenced by the diverse and oppressive situations that surround them (Parpart et al., 2000; Van Voorhis, 2017). Feminist theory serves as a lens to understand the gender disparity in education and the unequal educational opportunities that plague women. One of the targets of feminist theorists (and a societal matter that is becoming increasingly popular among scholars) is the issue of equal access to education for women (David, 2015). In Nigeria, gender norms create inequalities in power, autonomy, and well-being, usually to the detriment of women (Marcus et al., 2015). There is an under-representation of women in formal education institutions due to socio-economic, cultural, and religious factors. An example of this is in the discrepancy in the enrolment and literacy rates between the male and female populations in Nigeria. Allen (2018) states that feminist theory aims to abolish gender as a harsh cultural reality in addition to achieving parity in knowledge, power, and income. This involves minimising or eliminating the barriers to equal access to education using an appropriate intervention approach that might result in equal educational opportunities.

There are several feminist schools of thought. Socialist feminists analyse the role educational institutions play in the exacerbating gender divisions under capitalism. They reject positivism and state that all knowledge and technologies, including information technologies, stem from human beings and reflect the power of people and capitalist relationships (Pohl, 2018).

Radical feminists further argue that educational institutions promote the monopolisation of knowledge and culture by the male population, which is embedded

in the patriarchy. The capitalist system further promotes the continuation of male dominance. Radical feminists also reveal oppression, pointing out that the Internet is an instrument that contributes to making women more vulnerable to men who use technologies to order brides from third-world countries or for prostitution, cybersex, the appropriation of false identities, and pornography (Wajcman, 2010; Rosser, 2006).

Liberal feminists advocate for equal opportunities for women. The opinions of liberal feminists about education are related to equal opportunities, socialisation, gender roles, and discrimination. The approach of the liberal feminists involves amending socialisation practices, transforming attitudes, and using important legislation (Anderson, 2016). Some early cyber feminists, using liberal feminist approaches, believed that information technologies would put women on an equal footing with men. The views of liberal feminists do not challenge the status quo. Rather, liberal feminists believe that capitalism can coexist with gender justice and gender equality (Finlayson, 2016). The liberal feminist believes that education and empowerment can improve the status of women.

The contemporary perspectives of feminists have become more optimistic with the emergence of the digital era (Wajcman, 2010). They tend to have positive attitudes towards the potential of ICTs to change gender relations and empower women (Kemp and Squires, 1998). Within the African context, conceptualising feminism has faced several challenges. Nnaemeka (2003) posits that it is important for African women to acknowledge the African culture in their work for social change. Thus, in this study, the specific conditions of women in their diverse settings in Nigeria are considered.

3.3.2 Education Empowerment Theory

The education empowerment theory is a tool to understand the situations of rural, poor, and otherwise marginalised groups. The theory focuses on measures that can be taken to change the situation (Nikkah, 2010). In other words, the theory aims to improve individuals' and societies' abilities to harness resources and strategies that will enable them to achieve their goals. Santos (2011) supports the view on education empowerment because it identifies the need for the poor and the marginalised groups in society to change their situation. The theory states that for an individual to move out

of poverty, they must acquire knowledge and skills (Barrett, Garg, and McBride, 2016). Empowerment is a process of transforming the state of the existing power in a family, thus enabling women to have greater autonomy over the family's resources (Batliwala, 1993). Adichie (2014) asserts that we should all be feminist advocates and that women should be given the same opportunities as men, emphasising the need to change the assumption that men are more valuable than women.

3.4 WOMEN'S EMPOWERMENT AND GENDER EQUALITY

A report by UNESCO (2018) illustrates that in Nigeria, the female literacy rate is lower than that of males. According to data from 2018, the literacy rates of males and females aged 15 years and above are 81.58% and 68.26%, respectively. Overall, the illiteracy rates of males and females are 38.08% and 61.91%. According to the report, in 2016, 87.17% of males were enrolled in primary school, while 82.18% of females were. In the same year, at the secondary school level, the male enrolment rate was 44.1%, while the female enrolment rate was 39.83%. For tertiary institutions, data from 2010 present a male enrolment rate of 12% and a female enrolment rate of 8.3%.

A critical analysis of the rhetoric of gender equality empowerment programmes begs the question of whether there is a measure of gender equality because of the rapid shift towards improving the status and conditions of women despite the inequality plaguing them. Scholars generally believe that this situation represents merely a shift in the type of inequality experienced by women. For example, since the 1970s, the success of specific approaches utilised in the execution of microfinancing programmes has been heralded as a significant economic empowerment tool (Mader, 2018; Calves, 2009). Recent analyses suggest that participation in microfinance programmes has not reduced the global poverty rate; instead, it has aggravated the burden that women carry by participating in craft and debt (Bateman, Blankenburg, and Kozul-Wright, 2018; Sikivahan and Ponniah, 2018). Also, microfinance programmes have failed to empower women and reduce the poverty rate among women because of the external pressures that developing countries face from the restructuring of the economy by the neoliberals and the reduction in essential public services (Spolander et al., 2014).

On a structural level, feminists claim that the best approach to reducing gender inequality in a society is to promote the sustainable empowerment of women. The assumption is that empowerment is sustainable if it addresses the power differences and gives women the same opportunities as men to control the circumstances that influence their lives (such as resources and decision-making processes) (Calves, 2009; Cornwall, 2016; van Eerdewijk et al., 2017).

Mayoux (2019) also argues that a critical and comprehensive definition of women's empowerment should be developed that is not limited to microfinancing, which is justified by economic arguments. Simply put, in addition to lending money to women, it is necessary to consider their social, political, and economic status in a long-term and broad social and political setting (Phillips, 2015). Research has shown that gender issues are crucial for developing an economy, alleviating poverty, and improving the well-being of the population (Bayeh, 2016). Education empowerment is essential for the empowerment of individuals and groups, as it provides them with the knowledge and skills that they need to participate actively in development programmes (Stromquist, 2015). Education helps individuals to become aware of the services available to them and their ability to seek and receive these services. The outcomes that educated individuals might expect include improved family health, greater economic well-being, a lower rate of mortality, enhanced status among women, and gainful employment.

The concept of empowerment is broad and has no clear definition. For the purpose of this study, I adopt the definition given by Shetty (1992): empowerment is the ability to critically analyse the social and political environment and to exercise control over the decisions that affect one's life.

Solomon (1987) provided another noteworthy definition, stating that empowerment involves reducing one's overriding sense of powerlessness to control their life in the direction of reasonable personal satisfaction. According to Solomon, powerlessness stems from belonging to a marginalised group that is discriminated against by society's dominant institutions.

When the concept of women's empowerment is discussed, it is often linked to development. This is because it is believed that women's empowerment is crucial for

the development of any society. There are various approaches to women empowerment, such as Women in Development (WID), Women and Development (WAD), and Gender and Development (GAD). The WID approach emphasises giving women equal opportunities to participate actively in the processes of development in all areas of life (e.g. health, legal rights, education, and politics) (Moser, 2012; Staudt, 2018; Struckman, 2018; Moghadam, 2018). This approach has been criticised because of its focus on providing equal opportunity for women's involvement in development while failing to consider the diverse nature of women's issues, especially as they relate to women's subordination and males' dominant power structures (Struckmann, 2018; Moghadam, 2018).

The WAD approach, which is the approach that is the most relevant to this work, emphasises international inequalities, poverty, and the exploitation of women within capitalist development. It argues that social inequalities and the longstanding sexual division of labour render women subordinate and vulnerable to projects that do not consider their interests. WAD opposes large governmental projects and supports smaller-scale projects and local participation, calling in part for women-only projects to ensure their participation and prevent male domination. Critics of the WAD approach point out its representation of women as pawns within the capitalist system, meaning that this approach downplays ethnic and racial inequalities, as it blames neoliberal capitalism for the underdevelopment of developing countries (Lesetedi, 2018; Struckman, 2018).

The GAD approach focuses on the inequality in gender relations and the factors that influence women's subordination. Because gender discrimination exists in all structures, GAD calls for the reformation of all institutions of society (i.e. social, cultural, political, and economic institutions) (Zafar, 2016). According to Rathgeber (1990), GAD supports the development of strategies for women's participation in development while also calling for the re-evaluation of societal structure to help women become active participants in the process of development. The GAD approach encompasses all areas of women's emancipation (e.g. family, political, legal, and social systems), especially regarding how the government can provide services to women.

A common factor that is inherent to all of the models described above is their emphasis on the restructuring or reformation of institutional structures to empower women. However, Weidenstedt (2016) argues that empowerment does not occur in a social vacuum; rather, it is a process of communicative interaction with the individuals who are to be empowered. In addition, for the process to be effective, the communication associated with it must be suited to the skills of the individuals. Hence, Weidenstedt advocates for a contextualised approach to empowerment.

As discussed above, a crucial aspect of women's empowerment is making resources available to women so that they can gain control of their lives. The subsections below briefly explain the fundamental tenets of the empowerment framework. These tenets, according to Alsop and Heinsohn (2005) and Kabeer (1999) are agency, resources, capability, and the outcomes of development. In this study, resources and capability are combined under the label "institutional structures".

Agency: Agency is the capability of people to assess choices, consider probable outcomes, and make decisions that will influence their livelihood. These factors are vital if an individual is to make significant decisions in the process of empowerment (Alsop and Heinsohn, 2005; Campbell and Mannell, 2016; Knight, 2018). For example, the option to use a mobile phone to make meaningful decisions partly depends on the individual's agency to act. According to the empowerment framework, individuals who have psychological agency (such as self-esteem and self-efficacy) are more likely to reach a high degree of empowerment. This is because they possess a combination of psychological elements (Flammer, 2015) and capability assets (knowledge and information) (Panda and Rath, 2018), which enables them to search through institutional structures to make valid decisions proactively.

Resources: The non-psychological elements refer to tools that increase the capability of individuals to apply judgment and create opportunities for more significant changes in their lives (Kabeer, 2001). Alsop and Heinsohn (2005) used endowments such as informational, organisational, material, social financial, and human as a measure of resources. However, the resources are of two categories: human and non-human. The

human category comprises ICTs, education, income, and socio-cultural elements that influence the ability of the user (Dhondt, Oeij, and Schröder, 2018).

On the other hand, the non-human category refers to the technological infrastructure (service quality and handset quality) and structural barriers (inadequate facilities and electricity supply) that influence the effective and efficient distribution of mobile device telecommunication services (Kalba, 2008; Rouvinen, 2006, as cited in Sam, 2017). The framework posits that there is a reciprocal relationship between human and non-human resources with formal and informal institutions because access and the use of mobile technologies depend on institutional regulations and policies and socio-cultural values. Furthermore, there is a relationship between the resource agency and the level of empowerment. The position of the empowerment framework proponents is that the more access individuals have to resources and the greater their ability to use these resources, the higher the level of empowerment consequently. This increases these individuals' ability to use mobile phones productively.

Institutional structures: Institutional structures influence the propensity of individuals to make decisions. The institutional structure includes formal and informal institutions. The framework posits that the relationship between the institutional structures and agency demonstrates how each structure shapes and is shaped by the others. While institutional structures influence the ability of an individual to make choices (agency), the choice the individual makes affects how the institutions set the rules, regulations, or norms. Consequently, the abilities of the individuals are enhanced due to the relationship between agency and institutional structures (Baig, 2016).

Individuals who can access information, have the requisite communication skills, and are aware of their needs are in an advantageous position to use digital technologies to empower themselves (Schwerin, 1995). Similarly, the level of empowerment – that is, the availability, use, and acquisition choice – serves as a link between the outcome of development and the other elements in the framework (Alsop and Heinsohn, 2005; Kleine, 2011; Kabeer, 2001). It constitutes a valuable position in the process of empowerment because not every decision that an individual makes is empowering

(Kabeer, 2001). The implication of choice is the prospect of options, which is the ability to choose the alternative (Kabeer, 2001).

Nevertheless, having to make alternate decisions without a specific purpose is not empowering because some decisions are more important than others are regarding the implications they have on the lives of the individuals. On the other hand, the existence of choice does not mean that people are aware that they have the option to choose (Kleine, 2011; Bayissa, Smits, and Ruben, 2018). Therefore, within the context of this study, individual empowerment depends on the participants' ability to decide to make choices actively (participate in empowerment programmes) and to use those choices to obtain the desired result (Alsop and Heinsohn, 2005).

Outcomes of development: The term "outcomes of development" refers to the outcomes individuals realise from the empowerment process. In a development project setting where there are no pre-defined indicators, measuring the development outcomes of empowerment programmes becomes challenging (Kleine, 2011; Cornwall, 2016). Kabeer (2001) considers an individual's empowerment to be an achievement in many project-based cases. Similarly, Alsop and Heinsohn (2005) and Schwerin (1995) agree that an individual's acquisition of the development outcome of an individual reflects empowerment from an individual attribute perspective.

Researchers usually take the empowerment approach when discussing the advantages of digital technologies for women in third-world nations. The empowerment of women is the primary reason behind the provision of access to digital technologies for gender and development (McAdam, Crowley, and Harrison, 2018). According to Nath (2001), digital technologies open the opportunity for women beyond their immediate environment. There is a free flow of information, and women can access the same information as men (Gray, Gainous, and Wagner, 2017). Digital technologies allow for the use of the horizontal approach to communication (Castells, 2000). Mutsvairo and Ragnedda (2017) posit not only that people have access to information but that they can also gather and disseminate information. The potential for women's empowerment through access to information lies in the ability of women to obtain information from

sources other than conventional or government-controlled media sources. There are two perspectives to empowerment: individual and collective.

Individual Empowerment: Individual empowerment is the individual's ability to freely exercise and make personal choices from the power within. It has to do with equipping the individual to believe in themselves and their ability to effect change. Here the individual develops self-consciousness and has a sense of responsibility. According to Rowland (1999), individual empowerment is a woman's ability to feel strong and capable.

Collective Empowerment: When a group of people with similar behaviours come together and adhere to cultural values, they have achieved a level of collective empowerment, which emphasises collective growth (Budgeon, 2015; Kurtiş, Adams, and Estrada-Villalta, 2016; Kabeer, 2005). Collective empowerment is the ability of a community to achieve a collective goal through the participation of individuals within the community. Scholars like Kabeer (1994) and McLean and Modi (2016) advocate for collective empowerment due to the observation that individual effort may be fragile. Concerning digital technologies, Martinez and Reilly (2002) and Wahid et al. (2017) agree that collective, not individual, empowerment determines the potential for digital technologies to empower women to be active participants in the quest to satisfy their information needs. This is because collective empowerment has a greater impact on women and ensures that women are not merely consumers of digital technology but are actively participating in the socio-political sphere. Simply put, collective empowerment helps women to become better organised and express their aspirations for information (Martinez and Reilly, 2002; Cornwall, 2016) NGOs have been instrumental to the collective empowerment for women in Nigeria.

Undoubtedly, educating and providing employment for women in a fast-paced society and developing countries such as Nigeria will empower women and reduce gender inequality (Aja-Okorie, 2013). Empowerment is not a phenomenon that assesses or enhances the control or self-confidence of individuals; rather, it is the capacity for individuals to act (Dasuki, Abbott, and Azerikatoa, 2014). The outcome of empowerment is not as significant as the process of achieving empowerment and on the capacity of the

individuals in the process (Oreglia and Srinivasan, 2016). The agency of an individual is the human capacity to make informed decisions and impose those choices on the world (Buskens, 2010). In this regard, the focus of empowerment is to enable individuals to enhance their capabilities to influence their world (Gigler, 2004). This statement reiterates Amartya Sen's (1999) capability approach, which propose allowing individuals to live their lives as they want to.

3.5 WOMEN'S EMPOWERMENT AND NFE

Empowerment, as it relates to NFE, refers to the set of abilities (mental, physical and emotional) that enables a learner to be actively involved in and to influence their socio-political environment (Stromquist, 2009). For instance, women from South Asia, the Middle East, and sub-Saharan African countries have the freedom to make economic decisions because they participate in economic activities (Kandiyoti, 1988; Dolan, 2001).

Education is a tool for empowerment and societal development. According to Shamaki and Daniel (2015), education is the acquisition of knowledge, skills, and competencies that equip and enable every individual to engage actively in the socio-economic development of their community and to improve their standard of living. The education of women allows them to fit into the life of the immediate community and society in their commitment to achieving national objectives. Research implies that there are several private and public benefits developing countries gain by investing in a girl's education, such as a decrease in fertility and infant mortality rates, as well as increases in the growth of the economy and the overall productivity of the nation (Herz and Sperling, 2004; Aluko and Okuwa, 2018). UNESCO (2010) claims that NFE helps to eliminate poverty by providing equal access to education for women and improving their access to vocational training, science, technology, and continuing education. Furthermore, CEDAW (2017) states that NFE ensures that education and training are available to everyone, especially marginalised and disadvantaged groups, thus promoting the lifelong education and training of women and girls and allocating adequate resources to implement and monitor educational reforms.

Education is pivotal to the development of a nation because it contributes to the empowerment of the people through the dissemination of knowledge and the

acquisition of skills (Kimwari, Chirure, and Omondi, 2014). A functional system of education is imperative for the holistic progress of a nation such that it encompasses the individual, the society, and the economy. Goel (2007) agrees in his observation that the number of literate people living in a country serves as a criterion for judging the quality of the human resources of a nation. McLaren (1988) states that the notion of empowerment differs from the development of proficiency that is obtainable from the formal system of education (as cited in Carr, Tenywa, and Balasubramanian, 2015). Canning and Callan (2010) explored how students were able to improve their proficiency while developing the self-confidence and the ability needed to express their feelings, ideas, and experiences freely by actively taking charge of their learning and engaging in reflective practices through self-determined learning. However, a study by Jayaweera (1997) using literacy and the rate of enrolment in primary, secondary, and tertiary institutions as indices of education revealed that there is no clear relationship between education and women's empowerment.

According to Ballantine, Hammack, and Stuber (2017), education extends to the social and cultural processes that occur within and outside the formal education context. This broader contextual perspective, in addition to its focus on transformative learning processes, makes it relevant to the empowerment discourse (Monkman, 1998). Empowerment is not limited to self-worth and value or other personal attributes, but it extends to the development of human capacities that enable them to engage in the process of social change actively. Any form of development that does not give room to challenge inequitable social relations is an instrument of social reproduction, not of social change (Moser, 2012; Kabeer, 2005; Juujärvi and Lund, 2015). According to Nair (2015), the process of learning is optimal when the learner is at the centre of the design process and when the learning content is based on the individual's needs. When women are at the centre of the design process and they are allowed to be involved in their learning process, they are empowered to participate in the programme.

NFE, which faces enormous social and economic problems (including technological changes and significant changes in social attitudes, values, and living styles), appears to have developed to a point where it is gaining prominence as an alternative for marginalised people (Lovett, Clarke, and Kilmurray, 2018).

Darkenwald and Merriam (1982) define adult education as a process through which individuals who are classified as adult participate in systematic and sustained learning programmes to bring about changes in knowledge, attitudes, values, or skills. Meanwhile, Darkenwald and Easton claim that literacy and informal or adult education, in general, can be linked to the empowerment at overlapping and intertwining micro- and macro-levels (as cited in UNESCO, 2006). At the micro-level, literacy and NFE programs can be empowering when they turn learners into authors of their learning, developers of their knowledge, and partners in a dialogue about limiting situations and barriers imposed on them which are dehumanising (Freire, 1972). The previous statement describes psycho-cultural empowerment. At the macro-level, literacy and NFE programs can contribute directly to large-scale processes of socio-economic empowerment – in short, to the mastery that people, organisations, and communities acquire over their affairs and the control that they can exercise on their environment (Stromquist, 2015; Choudhary, 2015).

Adedokun, Adeyemo, and Agboola (2018) posit that today, Nigeria needs a development-oriented education model, which could be made possible through NFE. This is because formal education is entrenched in the theory of the formal school system and is not capable of meeting the developmental needs of a nation, thus making NFE indispensable (Olaye and Onajite, 2015). Similarly, Kamil (2005) posits that the formal system of education is not sufficient to address the needs of modern society, and therefore, it is imperative to adopt NFE (as cited in Tabacaru, 2018).

Ewuzie (2012) and Ogunyinka, Okeke, and Adedoyin (2015) stress that Nigeria places a high premium on formal education to the detriment of NFE. From my standpoint, despite the benefit of formal education, there is no evidence that formal education provides a quick solution to the challenges that individuals and nations face. In fact, to gain a high-quality formal education is costly because the schools that offer this kind of education are privately owned, while government-owned schools are underfunded (Eze, Chinedu-Eze, and Bello, 2018). Ewuzie's (2012) suggestion that the federal government should invest more funds for the management and administration of its NFE programmes is not feasible because of the government's lacklustre attitude towards supporting the education sector (Oke, Mainoma, and Bukar, 2018).

Due to economic and time constraints, adult women in Nigeria often opt for NFE to learn and empower themselves because of the flexibility and hand-on approach of this learning method. Empowerment is multifaceted and encompasses vocational skills, which is essential, especially for women's economic empowerment. NFE is a flexible type of education in which the learner controls the learning process, including the content, curriculum, and location (Manuel, Van der Linden, and Popov, 2017). The National Policy on Education defines NFE as the education that youth and adults receive outside the formal system of education, which includes functional literacy, continuing, and vocational education (Akinpelu, 1988). NFE, due to its inherent flexibility, is predominant in adult education programmes. Sometimes, adult education is even considered equivalent to NFE (Manuel, Van der Linden, and Popov, 2017). Adult education needs to be seen necessarily as a tool that can be used to create awareness and awaken the consciousness of all adults in society, giving them the enablement to think critically about the social, economic, and political conditions in their society (Lovett, Clarke, and Kilmurray, 2018). It is also to enable them to develop a sense of belonging, to generate a feeling of participation and satisfaction, and to gain access to full opportunities for development available to every adult in a society (Wlodkowski and Ginsberg, 2017, Sandberg, 2016). Thus, adult education helps to remove the barriers that prevent adults from realising their full potential (Guo, 2015).

Promoting women's empowerment through adult and NFE programmes is a necessity. This is because women's empowerment is an essential avenue through which women can adequately acquire knowledge about the events around them and begin to take control of their world (Nwankwo, 2018). Women's empowerment is a vital tool for fighting against ignorance, poverty, and disease (Hadi et al., 2015).

Bayeh (2016) emphasises that the methods used to facilitate learning and empowerment place economic growth at the service of the women for improved living conditions and the full realisation of their capabilities. However, Daniele (2017) argues that by highlighting economic concerns, the dominant discourse on adult learning offers a narrow and fragmented appreciation of women's and men's roles in societies. Bayeh (2016) notes that for women to realise their potential fully, their empowerment should encompass their economic, social, psychological, and cultural growth. This, he

reiterates, can be achieved most effectively by unifying the educational system and projecting women's national needs aimed at satisfying yearnings for scholastic achievement and encouraging innovativeness.

The concept of empowerment offers the potential for positive, realistic, and sustainable development for women in the near future. The motive for empowerment is that the women should not only be made more efficient and effective in the short run but should be prepared to face any challenges that are likely to develop later as a result of empowerment programmes.

According to Stromquist (1995), there are different forms of empowerment, which are described in the subsections below. The NGOs that are the focus of this study ensure that their programmes are designed to incorporate course contents that facilitate all of these forms of empowerment.

3.5.1 Economic empowerment

Whenever economic empowerment has been considered a critical strategy in addressing gender inequality, the focus has been on individual women through the provision of loans, job quotas, and government schemes (Chopra and Muller, 2016). Milazzo and Goldstein (2017), argue that there is a relationship between economic development and women's legal rights (e.g. property rights and access to bank loans). Hence, access to these tangible resources significantly impacts a woman's ability to benefit from her economic and social rights. Stromquist (2015) agrees that the inequality related to the ownership and control of the property is the factor that contributes the most to the inequality in terms of economic well-being, social status, and empowerment. Evidence shows that improvements in technology are advantageous to women, particularly regarding the provision of facilities such as electricity, potable water, and domestic appliances because these reduce the amount of time women spend doing chores (Duflo, 2012, as cited in Stromquist, 2015). Scholars argue that allowing women to access and control financial resources is a significant component of the equality and social welfare of women because it enables them to stand up against domestic violence (Ellsberg et al., 2015).

At the micro or household level, women's income fosters economic their empowerment, consequently making women independent and capable of making their own decisions rather than depending on their husbands (Ellsberg et al., 2015). However, because of the division of labour within a household and the burden of juggling between domestic and professional jobs, women tend to apply for jobs that give them flexibility rather than jobs that lead to career progression (Stromquist, 2015). Economic crises affect women more than they affect men, and this discrepancy is more prevalent in the modern-day neoliberal era in which unpaid work is irrelevant because of the emphasis on profit. Hence, no public policies reflect the processes within a household. This makes designing and implementing economic empowerment strategies challenging (Ross and Padovani, 2015; Fanelli and Potter, 2018). In the application of the theory, adult education transforms women from the unknowing stage to the knowing stage, which leads to poverty eradication through income generation (English, 2016; Duke, 2018).

Evidence shows that, with education, women are more likely to increase their income, as education helps women to establish various means of earning income for themselves and their families. Many women who participate in vocational or entrepreneurship-based education are often motivated to establish small- to medium-scale businesses, which sometimes develop into large-scale businesses that benefit their families and society at large (Aroge, 2016). Asadullah and Zafar (2018) agree that vocational skills acquisition programmes help to improve the socio-economic conditions of individuals and communities. For example, rather than depending on the government or private-sector for jobs, there is a significant increase in female entrepreneurs in Nigeria, most of whom are graduates who own businesses in diverse sectors such as the fashion industry, entertainment, event management, and catering. In most cases, some of these entrepreneurs already have full-time jobs with other institutions.

Powell (2018) opines that women continue to be in the least skilled and lowest paid jobs. Epstein (2018) argues that in addition to the school system, the home, psychology, and pedagogy, the curriculum orientation of education in both the childhood and adolescent stages influence the attitudes, values, and beliefs of individuals. Primarily, women's empowerment involves a conscious effort aimed at raising the consciousness of women about the deplorable situation under which they operate to enable them to take actions

towards the resolution of the problem (Stromquist, 2015; Mathur and Agarwal, 2017). Women, through NFE, can become economically and socially empowered (Samantaray and Ananth, 2018). Economic empowerment involves engaging in income-generating activities to subsidise their family income.

In Nigeria, the dominant form of adult education geared toward economic empowerment is entrepreneurship education. Entrepreneurship education aims to provide recipients with relevant skills, knowledge, and orientations that will help them establish innovative social and business enterprises from inception to execution. Entrepreneurship education is necessary to equip adults with the relevant knowledge and skills needed to establish and manage a business successfully. This is because of the high rates of unemployment and poverty in Nigeria and the importance of wealth creation in the survival of individuals and society (Okoye, 2017). This type of NFE helps women to develop entrepreneurial and problem-solving skills necessary to address personal and social challenges they may face in their professional and personal relationships (Asiyai, 2015; Ali and Salisu, 2019).

When women are financially independent, they are empowered to make financial decisions without depending on men. However, the empowerment of women is a daunting task that requires several types of actions and efforts to achieve a visible and sustainable effect. It also requires macro- and micro-level actions (Stromquist, 2015; Kabeer, 2012). Also, to achieve the desired policy outputs and to encourage structural changes through collective actions, organisations need to be highly committed to women's freedom to get actively involved (Ibrahim and Tiwari, 2014).

Indeed, helping women alleviate poverty is of significance to them because they are more likely affected by poverty and they manage most of the low-income families; however, achieving gender equality is not possible by relying solely on the economic empowerment of women (Stromquist, 2015). Next, we will look at the political empowerment of women because women in power may influence women's economic empowerment by eliminating the constraints imposed on women.

3.5.2 Political empowerment

As with economic empowerment, the political empowerment of women must involve the macro and micro implications of women's participation in politics. Women's political empowerment has become a priority because of its inclusion in MDGs. Researchers argue that there is a significant relationship between the political empowerment of women and the development in a family and the nation. Policies that affect women have involved the rights to move freely, to control resources, to own property, to freedom of speech, and to exercise their civic duties (Sundström et al., 2017).

According to Sundström et al. (2017), women's political empowerment allows women to participate in societal decision-making. Western countries and developing nations alike are increasingly recognising the significance of women's political empowerment because it is within the political arena that policies and decisions are made that affect men and women alike. Decisions made by those in political offices affect how people live their lives, and these decisions most often benefit certain groups at the expense of others.

Because women differ from men in their experiences, values, and socialization, researchers believe this will be a valuable contribution to politics. Hence, the UN and other international organisations recommend that women should hold a minimum of 30% of elected positions. This is because women need to have sufficient representation in politics to exert any form of influence (Sundström et al., 2017). Thus, at the macro level, electing women into any level of political office is pertinent to give women the representation that they can use to advance and improve their gender relations in society (Stromquist, 2015). According to Goltz, Buche, and Pathak (2015) assume that if women are given adequate representation in the political sphere, these women will remove the prevailing constraints on women's entrepreneurship, thereby providing opportunities for more women to enter the business sphere.

To ensure women are empowered to participate in the politics of Nigeria, many NGOs incorporate civic education in their programmes. For women to participate actively in the politics of a nation, education is a critical factor. Civic education became pertinent in the adult education space because of the need for citizens to understand their rights

and responsibilities in the society and the operations of the governments. Civic education makes people politically aware and helps them actively engage in the voting process (Adeyemi and Falade, 2015). Obasi (2014) explains that adult education is crucial for strengthening the democracy of a nation. If the electorate is not informed about the political process and their duties as citizens of a nation, it becomes impossible for them to achieve a democratic government. Hence, it is imperative to educate the people if a nation hopes to achieve a thriving democracy. Scholars argue that a properly organised civic education system with the right content and learning materials has the potential to encourage the development of democracy in a nation. Civic education helps the beneficiaries understand the intricacies of the political terrain in the nation, especially the electoral process, the fundamental rights, and civic duties of every citizen (Adeyemi and Falade, 2015; Larreguy and Marshall, 2017; Adamu, 1996). Acquiring civic education provides recipients with the proficiency to build institutions, empowers rural dwellers to carry out their civic duties with respect to other members of society to alleviate poverty and improve their income-generating skills regardless of their race, age, or gender (Olulube and Egbezor, 2012).

3.5.3 Micro/household empowerment

In a family, women do more work than men. Parents encourage this disparity during the early stages of their children's lives, and it only increases as they become older. For example, from the early stages of development, girls are told that they must cook, clean, do the laundry (even the laundry of the male children), wash the dishes, and fetch water, leaving nothing for the male child to do. These household conditions are difficult to change, as the parents encourage the sexual division of labour among their children, contributing to the reduction of avenues for power development among adult women in later years (Stromquist, 2015).

This challenge affects developed and developing countries because inequalities emanate from the household, and domestic violence is a pervasive act of men's supremacy over women. Hence, the household should be given the utmost consideration if a nation wants to influence social change (Thapar-Björkert, Samelius, and Sanghera, 2016; Malghan and Swaminathan, 2017). Women are forced to depend on their husbands financially and psychologically because of their unpaid work (Evans,

2014). Evidence shows that women comprise two-thirds of the world's illiterate population and, consequently, are motivated to enrol in literacy programmes. However, domestic chores constrain women from being available to complete the programmes or attain the level of literacy needed to become active participants in society. In addition, they become unavailable to organise, mobilise, or gain the enlightenment needed for social change to occur, and their lack of control over their bodies prevents them from negotiating their freedom (IPPF, 2015).

For young women, adult literacy is vital to the holistic development of the individual. Family, community, and parental involvement bolster the effectiveness of literacy and NFE programmes (Pereira, Fillol, and Moura, 2019). Scholars associate low rates in infant mortality and the improvement of child health care to the education of parents, specifically mothers. In addition, people assume that children are more likely to go to school and complete their education if their parents are educated, though this may not be the case for children whose parents are illiterate. However, fear and scepticism of parents that education will lead their children away from the cultural norms and values account for the low rate of enrolment in pastoral communities. Non-formal and distance learning for parents can help to address these concerns.

A crucial adult literacy programme in Nigeria for the empowerment of women within her household is family planning. The population of Nigeria is increasing at an alarming rate, and one of the factors contributing to this problem is poor family planning (Okorie, 2017). Family planning programmes address issues related to poor family planning and the pre-birth and post-birth reproductive health of mothers. Most importantly, these programmes teach women how they can care for their bodies (Ajaero et al., 2016). These programmes also empower women to gain control of their bodies and contribute to making decisions about reproduction.

According to Etokidem et al. (2017), women who have access to education are more likely to understand the need to have fewer children than women who do not have access to education. Odusola (2018) found that the fertility rate in urban areas is low due to education. Educational programmes provide rural women with the knowledge that they need to apply birth control methods that help them maintain a healthy lifestyle

and family. Many of the family planning educational programmes target rural women who have limited exposure to education. The programmes are also aired on the radio to reach rural dwellers who may not be able to attend a physical class or town hall where these programmes are held (Chukwuji et al., 2018).

3.5.4 Psychological empowerment

According to Mezirow (1990), the father of transformative learning theory, emancipatory transformative learning is the concern of all forms of adult education. In 1978, Mezirow developed a psychological approach to adult learning that focuses on significant changes in how women perceive themselves and their world, which has inspired many people who now participate in the women's movement (Mezirow, 2000). Empowering women means encouraging their cognitive awareness of their conditions of subordination and the factors creating such situations. Adamu (1996) affirms that adult education programmes have become tools for empowering women if they nurture their skills in critical thinking and help develop self-confidence and skills to plan and organise for change.

Women must be confident in themselves and hold themselves in high esteem if they are to effect any change and feel they can participate in the public sphere. Empirical evidence shows that women can only acquire those attributes through collective experiences in group participation and joint efforts and by acting out these attributes successfully. Hence, there is a significant relationship between psychological empowerment and the local sphere (Blau, 2017; Kabeer, 2012). Socially and psychologically, women can be made aware that they can improve their conditions by developing self-confidence and self-esteem, which will enable them to interact within their environment (Stromquist, 2015; Sharaunga, Mudhara, and Bogale, 2019). It is on this note that adult and NFE are identified as vehicles through which women can reach the empowerment stage in Nigeria.

3.5.5 Knowledge empowerment

It is widely believed that knowledge is power. In agreement with this notion, Carney and Indrisano (2013) submit that knowledge is an expression of power because knowledge broadens people's mental horizons, thus enabling them to see issues and social

phenomena from a broader perspective. Knowledge is a fundamental instrument used to identify marginalised groups and the various opportunities available to them to gain social control. However, Carney and Indrisano (2013) also argue that society neglects knowledge in the development process.

In an informed society brought about by the digital revolution, knowledge is regarded as the “new currency”, a concept that marks a distinction between those who are empowered and those who are not. While organisations and governments alike are concerned about developing sustainable communities by empowering the people, they fail to consider how they will acquire the knowledge that may inform and empower them. According to Stromquist (2015), common knowledge is not the type of knowledge relevant to challenge gender oppression; rather, it is knowledge that helps society to identify the factors that influence women’s subjugation and how society can contest those factors. Formal education and NFE are the two primary channels that can be used to acquire and transmit knowledge (Stromquist, 2015).

Basic literacy education is a kind of adult literacy education that equips adult learners – especially women – with general knowledge. According to Aroge (2016), this type of education is one of the NFE programmes provided in local communities that was organised and funded by the government. In observing these programmes’ tremendous growth, Aroge (2016) recently noted that the participants of these programmes are nursing mothers, market women, and women in farming who attend evening classes to acquire reading, writing, and arithmetic skills. The motivation of a greater percentage of women is the ability to count their money and keep an accurate record of their income and expenditures, efficiently use banking facilities (e.g. by writing their names and signatures on cheques, deposit slips, and other bank documents).

Hygiene and environmental education comprise another type of adult education in Nigeria with a high attendance rate among women in the local government area (LGA). Hygiene education, which is usually transmitted via radio or in the form of public seminars in an open space such as a market or in the form of a town meeting in local languages of Pidgin, helps participants become conscious of the significance of a clean and well-kept environment. The participants are taught what they ought to do to

prevent diseases such as malaria, cholera, diarrhoea, and other environmental diseases. The programme aims to sensitise people and influence their behaviours to be environmentally conscious and responsible (Norris and Osayande, 2017).

Another form of adult education introduced is digital literacy. A lack of proficiency using digital technologies and digital practices (known as “digital literacy”) hinders the active participation of individuals in online communities (Reynolds, 2016; Lim and Tschopp-Harris, 2018). As information transitions to the digital realm, the inclusion of technological competence is necessary for any literacy programme (Ray, 2019).

Digital literacy includes the competence needed to access and understand the entirety of digital technologies to enable a person to use the technologies efficiently (Real, Bertot, and Jaeger, 2014). Digital literacy also enables individuals to use of digital technologies and media effectively, as it offers opportunities to participate in new kinds of social activities (Hague and Williamson, 2009). Rodriguez-de-Dios and Igartua (2018) observe that digital literacy fosters collaborative, creative, and recordable communicative techniques that are essential for digital space and enabling people to protect themselves in the digital world. To participate in this era fully, one needs to be digitally literate to meet the demands of global competitiveness (Shopova, 2014).

Information sources and resources are becoming increasingly available online. However, people with limited or no digital literacy are unable to access computers, databases, or the Internet, leaving them at a total disadvantage, potentially leading to severe resentment and disdain for the digital library (Shapova, 2014; Kavanagh and O'Rourke, 2016; Rodriguez-de-Dios and Igartua, 2018). Being digitally literate has become a requirement for deriving maximum benefits from digitised or digital resources. As such, without digital literacy, users – and even online facilitators – will find themselves suffering from the digital divide (Nishijima, Ivanauskas, and Sarti, 2017).

Although many equate confidence in using digital technologies to being digitally literate, Hague and Williamson (2009) believe that digital literacy does not necessarily translate to competence. It is believed that high levels of dependence and self-motivation benefit the learner; such traits also reflect the abilities of learners to act in an agentic, empowered fashion (Selwyn and Facer, 2014; Lerch et al., 2017).

The utilisation of adult education programmes has helped immensely in meeting the yearnings, needs, hopes, and aspirations of the women in Nigeria. This is why Adamu (1996) states that adult education programmes remain the most important tool with which a national development plan can help women to develop themselves. In addition, Oyitso (2005) reveals that adult education programmes frequently stress the promotion of values of equalitarianism and egalitarianism, both of which are battle cries of disadvantaged women in Nigeria. Adult education should help women to form active groups so that they can gain more and more control over their lives, help themselves break the silence, and make themselves visible. Similarly, Huis et al. (2017) agree that engaging in a small group of people with a common purpose is a step in the right direction for women's empowerment, which resonates with Stromquist's (2015) position that collective agency is vital for women's empowerment.

This bridge between the educational and developmental needs of marginalised women and the actualisation of these needs can be complemented through a range of programmes, including NFE programmes offered by NGOs.

3.6 THE USE OF DIGITAL TECHNOLOGY IN NFE

Scholars suggest that NFE should be used to empower women with essential skills, many of which can be enhanced by such programmes and, thus, can directly help with poverty alleviation (Douglas, 2004; cited in Karabona, 2015; Veen and Preece, 2005). In the wake of the technological revolution, Ndlela and Mulwo (2017) argue that empowerment processes within the digital space manifest themselves in different forms and at different levels, from the individual to the collective. Access to requisite technology has been regarded as being essential to empowerment processes. Digital technology configurations like social media and educational apps add new dimensions to the empowerment discourse. With the technology revolution, women NGOs in Nigeria are now integrating technology into their programmes and training. One of the many reasons for this is to ensure that women do not lag behind the trend. It is against this backdrop that the need for NGOs' use of digital technology for women empowerment arose. NGOs can use digital platforms to alert, mobilise, and educate the women about public issues as well as shaping and influencing civil actions and attitudes toward self-development (Armstrong and Butcher, 2018).

The emergence of digital technology has heralded a new world of opportunities to learn, challenging the conventional mode of learning in a formal institution of education and providing spaces for everyone, regardless of race and age, to learn at their convenience. The observation is that in the public sphere, in which new technologies enable immediate intervention by public intellectuals it becomes pertinent to interrogate how we think about gender, empowerment, and digital technology and how they relate to specific uses and experiences (Bailur, Masiero, and Tacchi, 2018). Greenberg and MacAulay (2009) and Lovejoy and Saxton (2012), assert that NGOs and non-profit organisations use social media as a medium to disseminate information. However, Lovejoy and Saxton (2012) observed that, despite the interactivity function of the social media activity of NGOs, they tend to use it differently in fully engaging their users.

According to Kabir and Kadage (2017), the features of mobile technology – including the range of functions, multiple channels of communication, and the provision of wireless access to educational contents – make mobile devices appealing educational tools. Scholars believe that digital technologies are potentially the saviours of the education system because they promote personalised and contextual learning. Using technologies, institutions and instructors can structure learning to accommodate the learner's level of knowledge and needs, record their progress, and provide constructive feedback (Collins and Halverson, 2018; Nair, 2015).

Technical education in NFE equips adults with the necessary knowledge and skills that they need to live their lives in this technology-driven world. Among the topics that will be relevant to the learners are effectively using communication tools, social media, health, and financial management (Mackowicz and Wnek-Gozdek, 2016; Zheng, Niiya, and Warschauer, 2015).

The new information technologies apply to NFE in diverse ways, such as the provision of learning materials and support in the process of education, as well as organisations' operations of adult education and NFE (Dussel, 2018; Bartolomé, Castañeda, and Adell, 2018). In the 21st century, it is not feasible for a nation such as Nigeria (which has one of the largest populations in the world) to leave the majority of her people without education. This is because to achieve significant development, Nigeria must provide

practical education for rural dwellers, who compose a vast majority of the population. These people must be of high priority if they are to realise their right to compete favourably. To educate adult learners and empower them with the skills needed to participate in society today, adult education providers must adopt digital technologies (Ariya et al., 2015).

Although the use of digital technologies in NFE has advantages over traditional formal education (Piccoli, Ahmad, and Ives, 2001; Kem, 2018), there are concerns in terms of time, labour intensiveness, and material resources required for the administration of NFE (Sanders and George, 2017; Safford and Stinton, 2016). Considering that the participants of NFE are often not tech-savvy and may not have the knowledge needed to navigate through their devices for these materials, the process could be daunting for them, thereby discouraging women from learning and empowering themselves. Scholars argue that individuals absorb information based on their learning style, needs, and interests. Hence, not all learners can learn effectively using the same pace, approach, environment, path, style, and manner (Thyagarajan and Nayak, 2007).

Similarly, Safford and Stinton (2016) point out that some adult learners may be new to the use of technologies and may not understand how to use technologies for learning. In addition, they note that adult learners may struggle to combine their personal lives with online learning, which may be a barrier for learners to participate fully in training. Furthermore, Dasuki, Abbott, and Azerikatoa (2014), challenge the technologically deterministic approach, arguing that there is no link between ICTs and human empowerment, though there may be a connection between ICTs and the social, economic, cultural, and political contexts that sustain it. Masika and Bailur (2015) note the potential of ICTs to change the micro-dynamics of women's empowerment, but they are not ultimately a fundamental mechanism for this purpose (Abubakar and Dasuki, 2018).

3.6.1 APPROACHES TO THE USE OF DIGITAL TECHNOLOGIES IN EDUCATION

Despite the findings by researchers such as Venkatesh et al. (2017) and Bhandari (2019), who investigated how the emergence of mobile devices positively affects users'

engagement, there is still a dearth of research about how the integration of ICTs into NFE contexts is used for women empowerment.

Before the proliferation of digital technologies, only the rich and elite in society could afford the luxuries of technological developments such as computers, expensive licenses, and Internet connectivity. However, the emergence of free WiFi, open-source platforms, and free content websites eliminated some of the factors that once hindered the effective communication between learners, thereby increasing the opportunities for learners to communicate, interact, and participate in the learning process (Chun, 2015).

In Nigeria, the predominant approach to using digital technologies in education is eLearning. Early forms of eLearning comprised lecture notes that were delivered on CD-ROM, which allowed learners to read or listen to pre-recorded classwork at their convenience. As eLearning expanded, it became expected that the number of learning activities available through collaboration and interactivity should increase within the education system (Chang, 2016; Collins and Halverson, 2018). In addition, the use of the eLearning facilities enables learners to learn at their own pace and provides a hands-on approach to learning, thereby increasing students' retention and improving their academic and behavioural performance (Collins and Halverson, 2018; Falana, 2015).

According to Briz-Ponce, Juanes-Méndez, and García-Peñalvo (2018), mLearning is the delivery of NFE via digital technologies such as mobile devices. Bradford (2010) defines mLearning as the use of mobile devices to facilitate learning at any given place or time (as cited in Kabir and Kadage, 2017). Emerging digital technologies and a growing interest in the digital distribution of higher education have led to mLearning through mobile devices, the Internet, the World Wide Web (WWW) and multimedia (Sulaiman, Hussin, and Amir, 2018). Moreover, the availability of mobile and web-enabling technologies has had a colossal impact on the success of mLearning (Norman, Ally, and Nordin, 2018). In Nigeria, because of the privatisation of mobile service providers and the proliferation of mobile devices, only minimal issues related to Internet connectivity and device ownership have been perceived.

Several studies have explored the potential of mobile devices to support adult learning in diverse contexts. Some of these studies have investigated how mobile devices

influence the learning outcomes of adult literacy projects among rural populations and poor communities in developing countries (Nedungadi, Mulki, and Raman, 2018; Aker, Ksoll, and Lybbert, 2012). Other studies have examined how digital natives utilise mobile devices for their personal and professional development (Clough et al., 2008). Nikou and Economides, (2017) and Gu, Gu, and Laffey (2011) agree that the dissemination of learning contents through mobile devices could satisfy the learning needs of rural dwellers. For example, Abubakar and Dasuki (2018) found that the use of mobile technology improved the social opportunities of women to enhance their information capabilities through the use of WhatsApp; these women were able to improve their media literacy and gained knowledge in the areas of health and education.

There are several benefits to using mobile devices to learn. For instance, it supports communication and increases the level of interaction among learners (Collins and Halverson, 2018). In addition, because of its portability, it is easier to accommodate mobile devices than desktop computers in a classroom, which also makes it appealing to learners (Mehdipour and Zerehkafi, 2013; Shonola et al., 2016). The development of applications can support the empowerment of marginalised people by providing them with relevant financial, health, or educational information (Kabir and Kadage, 2017; Donner, 2008). Hence, mLearning proffers unprecedented prospects in the field of ICT education, especially in African countries.

mLearning provides educational opportunities to people who are unable to access formal education due to poverty and exposes poor people to new technologies that are steadily becoming an intrinsic part of the globalised society (Latchem, 2018). Hespanol et al. (2018) confirm that learning through mobile applications helps remove the barriers faced by young, adult, and disadvantaged people living in information-technology-related areas. Thus, mLearning increases people's independence, interest, and confidence in working with ICT using mobile devices for learning (Collins and Halverson, 2018). In their study on the challenge facing the educational system in Africa, Masita-Mwangi et al. (2012) proposed the adoption of mLearning as a feasible and cogent medium for disseminating education to Africans.

Despite the popularity of mLearning research, it has received some criticism. In many studies, the majority of the participants are young people who are proficient in English and technologies. However, they may not consider the feelings of the adults who may not be proficient in using technologies and the anxiety they develop when required to adopt ICT in an educational context (Navabi, Ghaffari, and Jannat-Alipoor, 2016). Moreover, these programmes have a myopic perspective of technology and literacy by limiting the use of digital technologies and not acknowledging the various range of purposes for which people might use technologies (Kvasny, 2005). Another criticism is that most of the technologies examined are developed in countries that already have a foundation of technology literacy (Stewart, 2016). Therefore, the adoption of mobile devices may prove to be more challenging in some contexts – especially in rural, tech-naïve communities – than the literature indicates (Valk et al., 2010).

The use of web-based applications such as open education resources (OERs) has increased. Organisations, including NGOs, often consult OERs for their training. In other instances, they refer students to OERs' websites for resources that assist with their learning and projects. OERs aim to provide free and accessible education to the public through technologies, thereby reinforcing the trend towards individual educational empowerment (Berti, 2018).

The potency of mobile devices in facilitating education is synonymous with the number of online information and knowledge collections that are uploaded on the Internet. A popular example of an OER is the Khan Academy. The Khan Academy website comprises learning contents that tutors various subjects consecutively in video format that last for about 10 minutes. The Khan Academy also makes provisions for individual learning paths and instant assessment feedback, which is connected to the instructor accounts (Lambert and Hassan, 2018; Khan Academy). Another popular OER is Wikipedia, which aims to make all information free and accessible to the public. Wikipedia has over 19 million resources in 270 languages, making it possible for people to access these resources in their language. In addition, highly rated institutions like the Massachusetts Institute of Technology (MIT) and Carnegie Mellon have adopted OERs, providing open courseware (OCW), which enables learners across the globe to gain free access to

university lectures and materials. Statistics show that about 75% of universities across the globe have made some of their learning resources available online (MIT, 2018).

3.6.2 CHALLENGES OF ADOPTING DIGITAL TECHNOLOGIES FOR NFE

Various challenges hinder the widespread adoption of digital technologies in NFE programmes. These include the student and their existing knowledge and skills; the instructor and their knowledge and skills; the programme of study and its design, and the technologies and the environment in which the programme takes place (Sun et al., 2008).

3.6.2.1 Programme of Study and Design

One of the challenges to the use of digital technology for women's empowerment is poor programme and content design. Melhem, Morell, and Tandon (2009) posit that the scarcity of women web developers and software programmers in developing countries may contribute to the dearth of local learning material that applies to the needs of women.

Another challenge to the use of digital technologies for African women and girls is language. It is difficult for learners from rural areas to depend on text-based interactions because many indigenous communities speak various languages, and English – the language of instruction – may be alien to them. Moreover, rural dwellers have long-lasting oral traditions and depend on verbal forms of communication. In these instances, it is difficult for learners to learn new content and ideas through online courses that hinge on reading and writing. Most contents on the web are in English, and rural dwellers who do not understand the English language are not able to access these web resources (Melhem, Morell, and Tandon, 2009). Hence, it is fundamental for proposed online learners in Africa to have the confidence to access and use mobile technologies before introducing mobile-assisted language learning to them. This entails that the devices should be programmed in the various languages of the users; when a mobile device and its features are only available in world languages, the device is inaccessible to African users who cannot read or speak in the world language.

The time-consuming and challenging process of developing digital courses in Nigerian languages is a major factor limiting the success of online learning among rural

communities. Hence, the majority of the learning materials are not of a good standard. Because of this limitation, educators have no option but to use resources written in English, thereby raising the problem of Western influence. This is because the increase in Western influence has led to the extinction of indigenous languages and cultures in some societies. There is also a growing fear among that if left unchecked, some Nigerian languages will become extinct. As it is now, the English language has been adopted as the official language in Nigeria (Odinye, 2012).

3.6.2.2 Technology and Environment

Major challenges in African countries (particularly in Nigeria) are a lack of infrastructural facilities, which indicate the poor economic, institutional, technological and infrastructure development of the country. Therefore, the country lacks institutions that specialise in information technology, evaluation, and quality assurance (Olaleye et al., 2018). Educational and government institutions are slow to adopt new technologies.

While the inadequate public power infrastructure has not hampered the use of telephone networks, it has increased the cost of connectivity and reduced the speed of network development. Thus, the further development and spread of Internet connections depend on improvements to the nation-wide power supply (Tayo, Thompson, and Thompson, 2016). The cost of connecting to the Internet is prohibitive because of the meagre monthly income of most rural dwellers (Osahon and Emmanuel, 2017; Adediran et al., 2016; Gillwald, Milek, and Stork, 2010).

3.6.2.3 The Instructor and the student

One of the most notable challenges is the lack of skilled teachers. The role of the teacher/facilitator at the basic level of learning is critical because it is at the early stage of education that the attitudes and self-image of learners are formed. Therefore, it would be detrimental to ignore the competence of teachers at this level as a critical indicator of educational quality. Education's significance to society depends on the preparation and training of the teachers for their profession (Stronge, 2018). ICTs are now indispensable tools for content and curriculum delivery in the classroom.

Similarly, while teaching and learning conditions are necessary, teachers are central to the question of education quality and relevance. The teacher's attitude and approach to

the use of technologies are also of paramount importance because teachers play a crucial role in the facilitation and dissemination of knowledge (Alwraikat, 2017; Gonzales et al., 2018). Nigeria lacks proficient instructors who can manage and organise online courses. As such, they are unable to educate learners on ICTs. Consequently, there is a constant need to train teachers so that they can maintain the skills needed in the ever-changing world of technology (Shonola and Joy, 2014; Serdyukov, 2017).

While staff in a formal education setting are entitled to professional development, staff in the NFE sector are not because NGOs provide their programmes through volunteers, who are not given the same opportunities as paid educators (Olaniyi, 2017). This, in turn, affects the content of courses taught to the participants. Briones et al. (2011) state that, owing to the lack of paid staff and time constraints, the effectiveness of many organisations is inadequate. They also agreed that without stable staff who can manage digital technologies strategically, it is challenging – if not impossible – for an organisation to achieve commitments from their participants, as consistency improves the relationship by showing the organisation’s dedication to online engagement.

3.7 BRIDGING THE DIGITAL DIVIDE: NGOs AND WOMEN’S EMPOWERMENT

As has been discussed in this chapter, developmental challenges in Nigeria have put women at a disadvantage. Despite the promise of making things better, the digital revolution has left most women – especially those living in rural areas – worse off owing to the digital divide. Digital illiteracy is one of the most significant barriers to women’s access to and use of technology. In Nigeria, formal education programmes cannot provide digital literacy training to the large group of uneducated people. Instead, alternative efforts are needed to ensure soft access to less educated and illiterate people by developing appropriate software applications and content. Hence, it is worth addressing the digital divide. Developing digital competence among rural women needs to be considered in the larger scheme of women’s empowerment and national development.

There is a vast amount of literature that investigates the concept of empowerment – especially women’s empowerment – through the work of NGOs. However, relatively little attention has been paid to how NGOs utilise digital technologies for women’s

empowerment via NFE. Recently, NGOs have progressively been working as drivers for social change, particularly by implementing activities that promote empowerment, including NFE (Banks, Hulme, and Edwards, 2015). Empowering women is fundamental to reducing gender inequality and increasing the socio-economic status of women.

Due to the recent increase in global interest in technology and ICT, some NGOs include digital literacy and incorporate the use of technology in their training. In addition, some of these NGOs utilise the services of mentors who have succeeded in these fields to facilitate the learning process of their participants, especially in the field of ICT and business development. Mentoring benefits mentors and mentees alike. The mentees gain the opportunity to learn from their mentors. The mentees may construct their knowledge and learn at their own pace (Palincsar, 1998). Much of the literature on NGOs and digital literacies assumes that better access to information (Olatokun, 2017) results in raising the education level of women and the amount of learning resources at their disposal (Fletcher, Pande, and Moore, 2017; Waiswa and Phelps, 2017). However, approaches that focus solely on access to learning resources, such as some mobile lifelong learning initiatives, Churchill, Pegrum, and Churchill (2018), may fail to reach their potential for developing a woman's agency and enhancing her capability to share her new knowledge with others because they do not focus on using these devices for social interactions among learners and teachers.

NGOs offering NFE programs depend on national and international funding. Most funding comes from international funders who, in turn, influence the programme and the participants. These NGOs reach out to international funders to ensure the sustainability of their organisation by using the concept of empowerment. The issue of NGOs' accountability to the local people is reflected in their claims that they address the needs of marginalised groups (Cusumano, 2019; Redeker and Martens, 2018; Keating and Thrandardottir, 2017). There is no doubt that NGOs rely on multiple stakeholders (e.g. sponsors, governments, local leaders, and communities) for their programmes to succeed from inception to implementation. Hence, NGOs must work with these stakeholders throughout the journey of the project, which poses a challenge to determine to whom NGOs should be accountable (Foo, 2018).

Scholars find that although NGOs are accountable to the sponsors mentioned above, the same cannot be said about their accountability to the local community, which potentially contradicts what NGOs stand for (Berghmans, Simons, and Vandenabeele, 2017; Beisheim, Ellersiek, and Lorch, 2018). NGOs are known for answering to the whims of their sponsors rather than the communities with which they work. Because NGOs' existence and survival depend on external funding, they are reluctant to challenge the policies of their sponsors (Tortajada, 2016; Banks, Hulme, and Edwards, 2015; Reimann, 2017). Several scholars have criticised some local NGOs as being agents of neoliberalism and capitalism (Reimann, 2017). In Nigeria, many NGOs locate their offices in capital cities and in the hearts of states, which are a long distance from the rural communities they serve.

Similarly, Osei (2015) found that NGOs did not meet the rhetoric of local participation in development programs, and the assumption of representing particular groups of people is unclear. These factors have generated the criticism that NGOs falsely represent local communities (Osei, 2015). Two factors influence the accountability of NGOs. First, the expansion of NGOs' relationships with international organisations diminishes their resolve to advocate for rural people (Cusumano, 2019; Redeker and Martens, 2018; Keating and Thrandardottir, 2017). Second, as the size and number of NGOs increase, their propensity to become inwardly focused increases; in turn, international politics (as opposed to the interests of communities) influence their decisions (Beisheim, Ellersiek, and Lorch, 2018). While NGOs' relationships with international organisations immensely benefit NGOs and, to some extent, the beneficiaries of the programmes, these relationships could also increase the gap between NGOs and the people they work with (Beisheim, Ellersiek and Lorch, 2018).

3.8 CHAPTER SUMMARY

This study examines the use of digital technologies in NFE programmes offered by three NGOs in Nigeria. This is done to understand the processes through which NGOs achieve their stated purpose of empowering marginalised women. The literature review in this chapter shows that NGOs play an enormous role in women's empowerment. The chapter discusses challenges related to development in Nigeria and the effects of development on women's education. In addition to the weak economy of Nigeria,

patriarchy significantly challenges women's education in Nigeria. The digital revolution has heralded a new era in which educational content can be distributed to marginalised women. However, despite the promise of digital technology, there a digital divide has been created in terms of accessibility and availability to digital technology and social capital.

Although the concept of empowerment varies based on the context, studies have shown that adult education and NFE can empower people. The available research supports the claim that adult literacy is a critical and viable contributor to the empowerment of learners and a country's development. This empowerment enables women and other marginalised groups to break the chain of exclusion that hampers their opportunities for participatory practice.

CHAPTER FOUR

RESEARCH METHODOLOGY

4.1 INTRODUCTION

This chapter focuses on the research method of this study. The philosophical assumptions underlying this study come mainly from the interpretivist school of thought. The interpretive approach gives me a greater scope in which to address the influence and impact of digital technologies on the programmes executed by the NGOs and to probe how NGOs use the digital platforms to gain contextual insights into the social phenomena under investigation. The purpose of the interpretive approach is to provide an understanding of the context. My ontological position was informed mainly by constructivism, which suggests that people participate actively in constructing their social reality and that they can view the world as a subjective reality instead of an objective one. The researcher can only achieve a proper understanding of people's words and actions if they are related to the broader context in which these people live.

4.2 PHILOSOPHY OF RESEARCH APPROACH

Qualitative research is associated with interpretivism (Snape and Spencer, 2003; Kivunja and Kuyini, 2017). Those who conduct qualitative research tend to emphasise the value of the human interpretative approach of knowledge concerning the social world and the importance of the researcher's analysis and interpretation of the issues under study.

Weber tries to establish a link between interpretivist methods. He believes that an interpretation of material contexts is necessary but insufficient to understand the lives of people comprehensively (as cited in Snape and Spencer, 2003). Instead, Weber emphasises the researcher's understanding of the connotations of social actions within the material context in which people live. According to Weber, there are two ways of understanding phenomena: direct observational understanding and critical or motivational understanding. He argues that there is a difference between natural and social sciences, with the former aimed at the production of legal propositions and the latter aimed at gaining a personal understanding of meaningful experiences.

On the other hand, the interpretivist school of thought stresses the significance of interpretation and observation to acquire knowledge about the social world, which it sees as fundamental to the qualitative tradition. The relationship between the diverse areas of people's lives is a crucial aspect of qualitative research. Researchers recognise psychological, social, historical, and cultural factors as playing significant roles in influencing the knowledge people have of their world (Antwi and Hamza, 2015). Thanh and Thanh (2015) and Carminati (2018) submit that researchers who use the interpretivist approach and qualitative methods search for the experiences, insights, and knowledge of people instead of relying on statistical data. To this end, qualitative research adopts approaches that are intended to provide a holistic understanding of the perceptions and actions of the research participants within the context of their daily lives (Snape and Spencer, 2003; Creswell and Poth, 2017; Flick, 2018).

As an African researcher, I agree with the position of Mutsvairo and Moyo (2018) that it is important for Africans to decolonise both the theory and methods in research to enable them to think using their minds, bodies, spaces, and different lenses. Hence, while collecting my data, I approached the process through the lens of an African.

4.3 EPISTEMOLOGICAL POSITIONING

I approached this study from the empowerment framework while focusing on the feminist standpoint of empowerment. This position forms the basis of the conceptualisation of this study. Feminist theory is pivotal to this research because it aims to empower marginalised women in order to recover their subjugated knowledge and use it to explore factors that influence women's experiences and uncover significant factors that can influence social change (Van der Tuin, 2016; Allen, 2017; Acuff, 2018).

The focus of the feminist research approach is the identity and concerns of the marginalised group of women in society, with a broader implication on how researchers conduct their research. The approach of the present research focuses on the experience of women in an attempt to make them visible, raise their consciousness, and empower them. The approach I chose to adopt in the research design, data collection, and discussion of findings reflects the feminist theory as defined by Bardzell and Bardzell (2011). A feminist standpoint argues that research must be respectful, caring,

collaborative and mutually constitutive, which is achievable by collecting and analysing the data in a manner that encourages the participants to share their stories.

I chose feminist theory because, for the most part, the participants of the programmes organised by NGOs were women who are keen about venturing into a domain classified as the “male domain”. Hence, participating in this research process gave them a way to tell their stories. The feminist approach emphasises ensuring that the researcher allows the conversation with the participants to unfold naturally to ensure that the views of the participants remain focal in the production of knowledge (Patterson, Howard, and Kinloch, 2016). Research from a feminist position allows a dialogue to be created based on the experiences of the social and personal world of women, which can help the researcher to understand the problem under study.

According to Acuff (2018), researchers gain knowledge by focusing on the distinctiveness of women’s lived experiences and experiential knowledge. As Brooks (2007) suggests, to understand the discrimination women face and to find a solution for it are achievable through the knowledge gained by analysing women’s experiences (as cited in Luyts, 2016). Moreover, Harding (2016) argues that researchers need to consider women’s perspectives when designing research exploring women’s issues. Irrespective of whether men or women conduct the research, the focus should be to explore women’s experiences.

In this study, my focus was on women’s voices, especially as they relate to women’s experiences in participating in programmes organised by NGOs. This is because, as beneficiaries of the NGO programmes, these women are in a better position to describe how the programmes might influence their lives. However, as opposed to gender resistance feminists, who only involve the voices of women in their study, I also included men’s perspectives (I also ensured that some male participants were also part of the interview process), as there were more male participants in one of the NGO training sessions.

I considered the participants’ social contexts and specific circumstances that led to their participation in the programmes to get a sense of their particular context. This allowed me to relate to each participant based on their specific situation. Martin (2017) argues

that the researcher should consider the local conditions and values of the participants because these factors influence women's participation and experiences. Interacting with women who participate in empowerment programmes allowed me to understand how their participation influences their lives and future plans.

Some of the programme participants were underprivileged, and some were living in orphanage homes that have little access to resources. Other participants were middle class but still struggling to navigate through their patriarchal society. As such, I was able to explore women's daily experiences by focusing on the issues that arise when they attempt to adjust to their prevailing culture, making it imperative to critique and conceptualise their position. This approach leads to an understanding of the complexities of women within a multifaceted situation (Beebeejaun, 2017).

Furthermore, by acknowledging my Nigerian background and my values that women should be treated equally with men, I was able to understand the experiences of the participants, thus ensuring that I established their perspectives as they relate to their empowerment process. This condition helped me consider their needs, which, if future programmes allow, could have a positive influence on the lives of these women. In this research, being a female enabled me to relate freely with the participants and the sampled NGOs. When interacting with me, the participants were relaxed and felt free to share their experiences, though this was the case only after I had shared stories about my own experiences and struggles. Hence, being a female and a Nigerian with an understanding of the patriarchal structure and the subjugation of women helped me conduct the fieldwork.

One of the criticisms of this feminist approach is that it is difficult to measure and test its impact, and it is not predictive (Love, 2016). Critics might argue that the approach is woman-centred because the participants and the researcher are women (Krijnen, 2017), and this may cause the data to be subjective. Scholars argue that the position of the researcher as a woman who may have had similar experiences as the participant may affect the research itself or the responses of the participants.

In the next section, I discuss my position as a researcher in detail.

4.4 POSITION OF THE RESEARCHER

The life-changing experience of the Aba Women's Riots of 1929 informed my position. These riots were deliberately organised by rural women in Aba to address their social, political, and economic grievances. These women were members of the Igbo tribe, the same tribal group to which I belong. A group comprising of thousands of Igbo women (Igbo is one of the major ethnic groups in Nigeria) from six ethnic groups in the eastern part of Nigeria travelled to Oloko to revolt against the Warrant Chiefs, whom they accused of restricting the role of women in the government. The protest forced many Warrant Chiefs to resign. Learning about the riot made me aware that rural women, though they may not have formal education, are willing to take the action they need to empower themselves as long as they have the required motivation and environment.

My position as an Igbo woman and as a Nigerian has been both advantageous and disadvantageous. I have extensive knowledge of Nigeria because I was born and raised there, thus giving me the advantages of being able to fluently communicate in the vernacular and to understand the social culture. I understand the value of the traditional patriarchal structure and am conversant with cultural values and belief systems. I was born into a family of four girls, and as I grew up, I witnessed the way society treated my mother as though she had no value because she had not had a male child. I witnessed how I was treated alongside my sisters as women of no value. I went through the humiliation of seeing my father being pressured by his relatives to take a second wife who would reproduce a male child for him to carry on the family name. Living in such a society and witnessing the privileges men enjoy gave me something in common with some of the participants of the programme.

Despite my advantages, my educational background (which differed from that received by most of the participants), was disadvantageous for the purposes of this study. When I initially arrived at the venue of the programmes and the introductions were made to the participants; they were somewhat careful and cautious in terms of what they said. Even when they approached me for questions, they had to compose themselves and speak clearly. Although I am not a foreigner, my alleged "privileged life" makes me appear different from them. My parents are financially stable by Nigerian standards and, most importantly, they have supported me in my academic pursuits. I am privileged to

be studying to obtain my PhD degree at an international university, not having been subject to the typical social pressures of inequality because of the support I receive from my parents. This, however, meant that, even as a Nigerian, my Western educational background distinguished me from the women I interviewed, whom society views as part of the disadvantaged class. At the inception of the study, I did not know some of the areas where the participants lived. To gain an adequate understanding of these areas, I had to blend in with the locals to gain their trust. I was aware of the importance of blending in to prevent an invisible gap from forming between the participants and me. My choice of dress, language, and cultural awareness enabled me to communicate and relate with the women on an informal level as they talked about their participation in the programme.

I broke the ice when I decided to communicate in the Pidgin language. I chose to conduct the interviews after the training sessions or during lunch, which made participants comfortable during the interviews. All participants seemed to be at ease about being interviewed; they were even excited. Whenever I came into the class each training session, they greeted me with smiles. Eventually, the participants started referring to me as the “Doc” or “Prof”. I endeavoured to ensure my interview questions were diplomatic to avoid offending the participants in any way – especially those who were Muslims. After the initial introductions at the early stages of the ethnographic data collection, I spoke to the participants to explain the purpose of my research, and most of the participants became eager to share their experiences with the programmes. Though the participants were concerned that I would share the information with the NGOs, when I assured them of my commitment to their confidentiality, they were more comfortable about suggesting ideas for future empowerment programmes. I could also sense the feeling of importance that the participants gained from participating in the interview process, especially when I informed them that the interview would be put on the record. The research was a way for women to express their feelings and the struggles they encountered, especially for those who found themselves surrounded and dominated by men in a programme that was supposedly organised for women.

4.5 RESEARCH DESIGN

4.5.1 Qualitative Research

Qualitative research positions the researcher in the world. It comprises a set of interpretative, material practices that make the world prominent. It involves an interpretative and naturalistic approach to the world, meaning that qualitative researchers explore things in their natural environment, aiming to understand or interpret phenomena regarding the interpretations people bring to them (Denzin and Lincoln, 2005; Creswell and Poth, 2017).

The researcher starts by assuming the worldview and then searches for the interpretations that groups have assigned to a social or human problem. Data is collected by talking directly to the people and seeing them work as they act within their contexts as they normally would. Meanwhile, emphasis is placed on the importance of situating the view of the researcher to influence a reflexive perspective to research findings instead of the conventional method that allows the researcher to assume an unbiased and reliable position (Ritchie et al., 2013).

Some researchers focus on specific areas of methodology as defining features of qualitative research (Denzin and Lincoln, 2000; Creswell and Poth, 2017). The orientation of the research in its entirety, the significance of the participants' frames of reference, the flexibility of the study design, the quantity and quality of qualitative data, the unique methods of analysis and interpretation, and the findings that the researcher derives from qualitative research are among the fundamental factors of this type of research (Denzin and Lincoln, 2000; Creswell and Poth, 2017).

4.6 RESEARCH METHOD

4.6.1 Case Study

The primary research method applied to the study is the case study. This is because my study investigates how NGOs empower women to use digital technologies; hence, to gather substantial data for this study, it was pertinent that I adopted the case study approach. A case study provides details about a pattern and meaning within a specific case that is being studied. A case study also involves generalisations to theoretical propositions; the grouping within the individual case provides the foundation for

comparing them with other cases, consequently leading to generalisations about actions and structures. Conceptual grounds, not statistical ones, are the basis for testing, revising, or withdrawing the findings from case studies. As such, the case study method is receptive to the context in which the researcher gathers the information (Hancock and Algozzine, 2016).

A qualitative case study enables the researcher to explore a phenomenon within its natural environment by utilising various data sources. This ensures that the researcher does not investigate the phenomenon through one lens but rather through multiple ones, which allows for numerous facets of the event to be unveiled and understood (Hancock and Algozzine, 2016). One of the merits of this approach is the close collaboration that it allows between the researcher and the participants while enabling members to tell their stories (Crabtree and Miller, 1999; Ridder, 2017). Through these stories, the participants can describe their views on reality, which allows the researcher to understand the participants' actions better.

For this research, it was appropriate to use the case study methodology, as this allowed me to gather in-depth information (Hancock and Algozzine, 2016) about how NGOs in Nigeria empower women through NFE programs using digital technologies. The NGOs used for this study are referred to as "NGO A" (which based in Lagos and has a special focus on technology and women's empowerment) "NGO B" (which is also based in Lagos and the focus of which is the development and advancement of women), and "NGO C" (which is based in the northern Nigerian city of Kano and focuses on women's empowerment and development). These NGOs were chosen because they are actively involved in empowering women through digital technology.

The NGOs were initially contacted through e-mail. After the initial e-mail, follow-up e-mails were sent and phone calls were made to confirm and schedule the dates for the programmes, to confirm the number of participants, and to explain my specific role in the process. Moreover, because case studies are not data-collection tools but rather analytic techniques, I used ethnographic approaches to gather data.

4.7 RESEARCH APPROACH

4.7.1 Ethnography

For me to understand the practices of the NGOs and their use of digital technologies to empower women, I needed to immerse myself in their world. Because I was interested not only in the NGOs' activities but also the actions of the participants, I had to conduct an ethnographic study. Ethnography is a qualitative method that focuses on studying the culture of a group to ascertain the patterns of beliefs, values, and behaviours that members of a group share (Creswell, 2007). As O'Reilly (2012) suggests, ethnography – which focuses on the structures (e.g. cultural and institutional structures) that influence the thoughts and feelings of individuals within the context of daily life and individual actions – is ideal for studying the practice of social life.

According to Reeves, Kuper, and Hodges (2008), ethnography is the study of the social interactions, behaviours, and orientations that takes place among members of a group, team, organisation, or community. The history of ethnography dates back to the early 1900s, when researchers such as Bronislaw Malinowski and Alfred Radcliffe-Brown conducted anthropological studies in small, rural communities over extended periods and documented the social arrangements and belief systems of these exotic communities. Ethnography aims to provide a substantial, holistic view of the perceptions and actions of a group of people. Ethnographers are responsible for keeping records of the culture, views, and practices of the group under study to uncover the way each group of people sees the world (Merriam and Grenier, 2019). Similarly, O'Reilly (2012) agrees that ethnography is not so much a theory about conducting research as it is a combination of methods, including participant observation, in-depth interviews, and conversations, employed to understand the social world.

Ethnography is the art and science used to describe a group or culture. According to Angrosino (2007), ethnographers carefully observe and participate in the lives of those under study in search of predictable patterns in the lived human experiences. In ethnography, it may be necessary for the researcher to immerse themselves fully in the daily lives or culture of the society under investigation and to integrate themselves into the context and build trust and rapport with the individuals being studied (O'Reilly, 2012). According to Atkinson (2014), anything the researcher hears, feels, sees, or reads

in the field is an essential source of data. O'Reilly (2012) claims that ethnography does not seek to reduce the complexity of social life but is a reflexive account of the role of the researcher. Moreover, Atkinson (2014) submits that ethnography requires the researcher to participate, overtly or covertly, in the daily lives of the people under study for an extended period. During this time, the researcher observes the daily occurrences and activities within the group, asks questions through informal and formal interviews, and collects documents and artefacts. The researcher gathers every available piece of data to enable their understanding of the phenomena that make up the emerging focus of inquiry.

Ethnography has specific unique features (Angrosino, 2007; Creswell and Poth, 2017). The first is that ethnography is carried out in the natural environment of the participants, with attention given to verbal and nonverbal behaviours. Second, it is personalised because the researcher plays the role of observer and participant in the lives of the group under study. Ethnographers collect data in different ways for triangulation over a period. Ethnography requires a long-term commitment from the researcher because of its inductive and holistic nature. Conclusions and interpretations formed through ethnography can be given as comments or feedback to those who are under study because of the dialogic aspect of ethnography.

Researchers can conduct ethnography at any place and focus on getting the participants involved in the process rather than treating them as objects, thus providing the researcher with an insider's view of reality and a rich database for further study and writing. The participants recognise the role of the researcher, which enables the researcher to make the study not only exciting but also adventurous, as it may provide an opportunity for the researcher to learn about the workings of a different society. Conducting ethnographic research is not expensive because it does not require intricate tools or equipment, drawing instead upon the personal skills and strengths of the researcher. It offers the researcher an opportunity to integrate professional input and is applicable to study marginalised groups of people who are opposed to participating in other forms of research. On the other hand, there may be significant expense involved as it does require the researcher to live alongside the participant without being a burden to them. The use of ethnography is gaining ground among Nigerian scholars such as

Ogunrinde (2015) and Osezua (2018), who adopted the ethnographic method in their research.

Participant observation and interviews are two instruments of data collection that I chose to adopt in this study. I used these methods to create balance and eliminate bias. Poland and Pederson (1998) argue that participant observation may be suitable to generate clear insights about the contexts that shape the interviews and may be more effective than interviews alone. Consequently, although there is no guarantee, this is likely to lead to an enhanced understanding of the discussions observed and participated in. To understand better why communities create stories, there needs to be a multiplicity of contexts for discussion and room created for interactions to occur in natural settings (Jorgensen, 2015; Flick, 2018).

Furthermore, the choice of the interview and participant observation over other research methods (e.g., questionnaires, focus groups) is premised on the fact that I would not have the liberty to examine the case study in detail if I was to use alternative methods. Using the questionnaire, there is a limit to the number of questions the researcher can ask the respondents, as not to bore them. Besides, some responses may need clarification or further explanation. Furthermore, when using a focus group discussion, some individuals may take over and limit the contributions of others.

4.7.1.1 Participant Observation

Hammersley (2018) posits that direct observation may produce data that enable a researcher to keep an accurate record of what people do, how they do it, and why they do it, as opposed to relying wholly on the accounts of the participants about the issue under investigation. As a prerequisite, adopting participant observation requires the researcher to be involved as a participant in the natural environment of study and make detailed observations of the group and context under study (Jorgensen, 2015; Flick, 2018). The researcher needs to reveal the scope of their involvement in the study explicitly. O'Reilly (2012) and Flick (2018) agree that it is only when a researcher becomes immersed in the context, interacting with the people under study and observing how they experience things and live their daily lives, that the researcher can get them to express their thoughts and feelings freely. The importance of being involved

in the natural setting is to allow the group of people under study to get used to the presence of the researcher.

Angrosino (2007) sees observation as the act of ascertaining the activities and relationships of individuals in the research field. Participant observation is distinct, as it is a combination of the researcher's involvement in the lives of the group under study as well as the researcher's maintenance of a professional distance (Fetterman, 1998; Jorgensen, 2015). Participant observation necessitates direct engagement and involvement with the people the researcher is studying. Owing to the problematic nature of social life, a remarkable aspect of participant observation is the researcher's overall commitment to investigate the daily social lives of the participants in their context and the time it takes the researcher to understand the local social structures, institutions, and cultural practices of the group adequately (Blomberg et al., 2017; Spradley, 2016). Participant observers take time to allow familiarity, develop trust and rapport, enable the emergence of hypotheses, reduce the Hawthorne effect, and pay attention to processes and changes (O'Reilly, 2012; Parker, 2017).

Atkinson and Pugsley (2005) and Flick (2018) observe that there are several misconceptions concerning participant observation. One such misconception is the assumption that participant observation is invalid because the presence of an observer can influence the actions under observation (i.e. people will act differently when they are aware that they are being observed). An example by Atkinson and Pugsley (2005) is a one-off inspection of educational settings during which teachers and students were on their best behaviour while being observed. Contrary to the assumption, the basis of ethnographic studies are not solo visits, nor do ethnographers perceive themselves as competent evaluators. Instead, because it is not possible for people to pretend over an extended period, ethnographers can gather meaningful data once the participants become relaxed.

A second misconception is that participant observation is necessarily subjective. Atkinson and Pugsley (2005) counter the assumption by emphasising that ethnographers do not engage in the indefinite and impressionistic gathering of personal experience in their research field. Ethnographers meticulously observe the daily

activities of the group, accurately document their observations over an extended period, and systematically analyse the data. Consequently, participant observation is objective, as the ethnographers use observable and recordable data. The researcher identifies with the group of people under study (Flick, 2018). A dedication to reflexivity is crucial to the research process (Alvesson and Sköldberg, 2017). Atkinson (2014) notes that all social research hinges on the potential for participant observation. Individuals function in the social world and can reflect on themselves and their actions as objects in the world, including the role of the researchers. When researchers carefully explore their involvement in the context under study, they can examine theories without relying on vain appeals to the empiricism of either positivist or naturalist variations. Consequently, scholars argue that ethnographic research, like any other form of research, is objective and that the results have a high level of validity (Atkinson, 2014).

The third misconception about ethnographic research is the assumption that it generates self-contained case studies with little or no continuity. However, this is far from the truth. Within specific disciplines and specialist fields, researchers can find consistencies and coherent sequences in ethnographic studies. At all levels of research in the various fields of study, there is a strand of ethnography. (Atkinson and Pugsley, 2005).

There are several benefits to engaging in participant observation in ethnographic research. One of the advantages of participant observation is that it allows the ethnographers to situate themselves in a specific context, subsequently producing a wealth of knowledge of the nuances of social actions in diverse settings. Using participant observation, ethnographers can gain a practical understanding of the social practices of a society that participants usually hide from the public. In addition, participant observation aims to establish holistic social narratives of the phenomena under study. Using ethnographic research enables the researcher to discern, explore, and connect social issues that might not ordinarily have been thought to be related (Flick, 2018; Creswell and Poth, 2017).

The problem associated with ethnography is the extended period ethnographers spend interacting with participants and observing their actions. There could be a challenge of

gaining multiple access to research field when the gatekeepers believe the outcome of the research could cast them in a poor light. The process of gaining formal approval from research ethics committees is complicated (Flick, 2018).

Secondly, engaging in participant observation enables the researcher to explore, discover, and describe unusual behaviours. The researcher is open to further explanations of conduct because theories or hypotheses are not formed deductively. According to Hammersley (2016), a significant benefit of participant observation is that the researcher gets new ideas as things happen. The researchers observe how experience evolves, how ideas change, and how people navigate through situations. Finally, participant observation allows the researcher to gain a deep understanding of a society's subculture by analysing their phrases and semantics, leading to the discovery of the reasons for situations' occurrences.

During the observation of participants, I was present in all the training sessions. The participants were made aware of my presence. The information I gathered was documented in my field notes. On some occasions, I took notes as I observed, while on other occasions, when taking notes could have been distracting to the participants, I documented my observations at the end of the day. The focus of my observation was to examine how the participants interacted with the programmes and among themselves. I also observed the approach the staff in the NGOs adopted for the training sessions. Out of the three NGOs I studied, I spent one month each with NGO B (June-July 2018) and NGO A (July-August 2018). Meanwhile, I spent only two days with NGO C, observing their programme via Skype video calls. I was unable to visit them physically due to the political unrest in the state.

4.7.1.2 Interviews

This study aimed to explore how NGOs use digital technologies to empower women. While participant observation is an excellent means of data collection, there is no disputing that there is more information to garner from talking to people. Some questions may arise from the observation that can only be answered by interviewing the people involved (Hockey and Forsey, 2012). Overall, interviews are particularly useful when considering a research field, after concluding participant observations, or when

there are visible changes in the participants that the researcher finds interesting (Eriksson and Kovalainen, 2015). The interview allows the researcher to learn how people directly reflect on their behaviours, circumstances, and the events surrounding them.

On the other hand, participant observation provides information on the action and behaviour of the people under study, which is valuable if the researcher wants to gain an insider's perspective. Sometimes – perhaps even often, depending on the questions one is asking – we can observe human knowledge, ideas, beliefs, and values in action. However, at times, this is neither possible nor desirable; sometimes, observations do not yield much data of significance. Hockey (2002) portrays the research interview as a culturally appropriate form of participatory research. More specifically, researchers use a single-case from each of the extensive interview conducted to highlight how engaging with fellow humans can fulfil the criteria for particular individual insights that are all-too-often attributed to participant-observer research.

However, before doing this, it is essential to explore further the troublesome disconnect between anthropology, ethnography, and participant observation that has occurred in the relatively recent past. Participant observation may well be the most efficient way to arrive at a final destination in some – and perhaps even most – cases, but it is not essential to the compelling production of a descriptive-analytical account of a social grouping (Hammersley, 2018). Holm and Lehtomäki (2017) agree that interview-based studies offer a culturally appropriate means of conducting socially engaged forms of research, particularly in Western settings. Interviews can sometimes be the most efficient way to produce ethnographic data. The research interview provides opportunities for the researcher to gather in-depth knowledge that they may not have acquired by using surveys, observational studies, or the majority of casual conversations that we have with other humans (Eriksson and Kovalainen, 2015). The reality of fieldwork is that interviews give researchers access to the interviewee's perspective, enabling the researcher to find out what would not have otherwise been made known; to locate the knowledge people carry in their heads, their notions, or the beliefs and values driving human action (Oltmann, 2016).

There are two ways to understand qualitative interview data: as a resource and as a topic. When perceived as a resource, interview data portrays the data as a reflection of the interviewee's reality outside the interview. On the other hand, interview data as a topic portrays the data as the reflection of a fact mutually established by the interviewee and the interviewer.

Interview data as a resource depicts the assumption of most social science perspectives; the interviewee has pre-existing knowledge that the interviewer has to obtain to develop the data (Oltmann, 2016). The researcher can then analyse the data by seeking the themes inherent in the content of what the participant said during the interview. To get the interviewee to talk freely, the interviewers have to position themselves in a way that elicits the trust of the interviewee, which scholars describe as “building rapport”. The purpose of building rapport is to allow the researcher to have a real understanding of the world from the perspective of those being studied and to understand how the persons under study think about their world. The best way to build rapport with the people is by being a good listener, which entails little talking and conversing and much listening. The researcher has to show genuine interest in the participant and has to make the participants comfortable in a social space should be of high priority. The researcher should conduct the interviews in an environment that enables the participant to be relaxed and talk openly. It is the responsibility of the researcher to inform the participants that the interview forms one part of the data to enable the participants to understand of the overall implications of being interviewed (Miller and Tewksbury, 2010; Eriksson and Kovalainen, 2015).

Those who hold the view that interview data is a topic have criticised the belief that interview data is a resource because the interview is interactional and each participant mutually monitors each other's speech (Rapley, 2003). In addition, there has been criticism regarding how the researcher brings the participants' stories to life to include the reader in the written narrative. They argue that the researcher might mask, not illuminate, the meaning of the participants' story. This is of the utmost importance, as explanations of everyday phenomena rely on the representation of historical data (Charmaz, 2012; Hammersley, 2018). Beaud (2018) avers that the key to the interview

as a topic is that the account created is an outcome of the context of the event produced.

To give room for flexibility while operating within a given context, I employed the semi-structured interview format. This format allowed me to probe beyond the answers to the set of interview questions. I focused on interviewing people in charge of producing educational content as well as those with the responsibility of controlling digital content and its dissemination. In addition, to understand how the programme met the needs and expectations of participants, I interviewed the programme participants. The interviews were conducted in the venue of the training and the offices of the NGOs. For security reasons, I was unable to visit one of the NGOs in person; as a result, I connected to them via Skype, which was also the medium for the interview.

Because of the uneven number of beneficiaries from the NGOs, I was unable to interview the same number of participants from all the three NGOs. Forty-five people were interviewed in total: six programme facilitators and 39 programme participants. Of the 39 participant interviewees, five were males from NGO A, which had a combination of male and female participants.

NGO C, located in the rural area of Northern Nigeria, had only five participants in their training session, although about 10 people indicated an interest in participating in the programme. I was able to interview three of them. As noted above, security issues at that time in the country prevented me from visiting the training venue, and I instead connected with and interviewed these three participants via Skype. The interviews lasted between 20-30 mins.

4.7.2 Netnography

Netnography was necessary to establish the online presence of the NGOs in the social media sphere. Although netnography can be time-consuming and can make it extremely difficult to avoid observer bias, the benefits of arriving at a proper understanding of what was being observed made it a vital research method. Structured observation, as submitted by Saunders, Lewis, and Thornhill, (2007), was used while analysing these organisations online. I applied the suggestions for best practice by Kanter and Fine (2010), and Rybalko and Seltzer (2010) to measure the levels of information; the

transparency of the website; and opportunities for interactions that the NGOs provide on their websites as well as on their YouTube, Facebook, and WhatsApp pages.

In recent years, there has been an increase in the number people accessing online communities like newsgroups, blogs, forums, social networking sites (SNSs), podcasts, videocasts, and virtual worlds, thereby making the Internet a vital space for research (Kozinets, 2018). The rise in digital activism in Africa has made netnography a viable method among scholars such as Mare (2016) and Faimau and Behrens (2019).

The assumption that guides ethnographic inquiry is that culture evolves after a period during which a group of people interact together (Patton, 2002; Reeves et al., 2013) and ethnographers investigate the daily life and experience of people with a focus on their culture (Anderson-Levitt, 2006; Spradley, 2016; Blomberg et al., 2017). Whereas cultures were previously understood as geographically bounded groups, the emergence of online communities has caused geography to lose its relevance within the framework of cultures (Boyd and Richerson, 2009) as the public creates virtual cultures and communities through computer-mediated communication (CMC) technology (Çiftçi, 2016).

The ability to interact through technology on the Internet enables teachers to connect with other teachers and educators, attend online conferences and webinars, and collaborate to create online communities (Yildiz, 2016). These online communities provide an avenue for researchers to study different forms of building and sharing cultures among online communities, which requires ethnographic fieldwork. Various terms, such as virtual ethnography (Hine, 2017), online ethnography (Markham, 2005), and netnography (Kozinets, 2015), have become used to describing this adapted form of ethnographic research.

Kozinets's (1998) first attempt to define netnography introduced the concept as an online methodology used specifically for marketing and consumer research. He submitted that netnography is an interpretive approach to investigating the behaviour of consumers' cultures and communities online. However, in his book *Netnography: Redefined*, Kozinets (2015) describes netnography as a "specific set of related data collection, analysis, ethical and representational research practices, where a significant

amount of the data collected and participant observational research conducted originates in and is manifested through the data shared freely on the Internet, including mobile applications” (p. 79). According to Kozinets (2015), the emphasis on a significant amount of data distinguishes netnography from digital ethnography and means that netnography can include other traditional ethnographies with a focus on how national cultures inflect mobile Internet use and the use of technologies within the home.

Other disciplines, such as sociology and management, have adopted netnography. Thus, the methodology has been further developed as a means of investigating communities online to gain an ethnographic understanding of their cultures. It is still uncommon for researchers to use netnography in educational research involving online educational communities. Researchers interested in exploring the ways consumers are educated and socialised informally outside of the traditional classroom context will find netnography helpful (Sandlin, 2007).

The emergence of the Internet and online technologies has necessitated the need for researchers to extend their work by gathering information online to explore how individuals relate to the online environment. In other words, online ethnography extends the conventional concept of ethnographic study from context-based observation and face-to-face researcher-participant interaction to interactions with online networks and communities mediated via technology (Hetland and Mørch, 2016; Akemu and Abdelnour, 2018).

Netnography was necessary to establish the NGOs’ online presence in a detailed manner. Alavi (2015) believes that compared to conventional and market-oriented ethnography, netnography is far less time-consuming and is an accurate method for collecting data online. The benefits of arriving at a proper understanding of the phenomenon under observation have made netnography an important research method. In the present work, I used a structured observation while analysing organisations online. Moreover, I was interested in knowing how these NGOs used YouTube and other digital technologies for their programmes and the best practices they employed.

Netnography, which at one level is like traditional ethnography, attempts to describe and interpret the socio-cultural system holistically through immersion in a cultural field (Kozinets, 2015). Observation is a crucial element of netnography through which the researcher observes the communication that occurs on a specific website to understand the Internet culture better. It involves being fully in the data stream (Kozinets, 2017).

In netnography, the communication between the online participants and the researcher's field notes are the tools with which the researcher describes, reflects, and analyses what is under observation in the research (Costello, McDermott, and Wallace, 2017). To handle large volumes of netnographic data, Pollok, Lüttgens, and Piller (2014) suggest utilising computer-supported data analysis. Researchers need to be cautious when deciding to use combined approaches that allow the analysis of a large quantity of netnographic data, as it may increase the penchant for deferential netnography and the covert analysis of online archival data instead of supporting an active piece of netnographic research (Kozinets, 2015).

Zwick and Dholakia (2004) (further reiterated by Kozinets (2015)), stated that in the online environment, participants are likely to pretend to be someone they are not, which has a significant impact on the trustworthiness of the data. Besides, it is impossible to obtain or verify the demography of online communities' participants. Dholakia and Zhang (2004) explain that in an online community, researchers cannot be sure that the participants are who they say they are. To address some of these issues, Kozinets (2015) advises researchers to use the speech act and communication as the unit of analysis and not the participants themselves. To ensure that viable data are collected, Nuttavuthisit (2019) implores researchers to immerse themselves in the culture of the community for a long time.

As is obtainable in any piece of research, netnographers need to address ethical issues. Tuikka, Nguyen, and Kimppa (2017) describe three primary ethical issues surrounding online research, which includes the anonymity of the members of the online communities, informed consent of the participants, and the need for accountability in cyberspace. They further found that few researchers seem to be interested in disclosing their ethical practices relating to netnography and do not seem to concern themselves

with the topic. Some scholars submit that Internet users work under the assumption of privacy and confidentiality (Haggerty, 2004), which may prompt the researcher to promote the use of informed consent and disclosure by the researcher. Nuttavuthisit (2019) agrees with the use of informed consent and full disclosure by the researcher. She urges researchers to disclose their presence to the online community, provide a detailed explanation of their research, assure the participants of their confidentiality and anonymity, request feedback from participants, and procure the informed consent of the participants before using specific quotes in the research work. However, other scholars, such as Langer and Beckman (2005) validate the use of covert netnography when researching sensitive topics such as cosmetic surgery. They argue that there is a possibility that a study will be compromised if the researchers reveal themselves and the participants are opposed to the study.

The period of the analysis for this study was from May 2018 to October 2018. The review conducted on the WhatsApp group was carried out between July 2018 and October 2018. After gaining the approval of the ethics board, I subscribed to the social media pages of the NGO, both on Facebook and YouTube. When I arrived for the fieldwork, I also requested that NGO A and NGO B add me to their WhatsApp group. This allowed me to be notified when the organisation published a new post on Facebook or YouTube, which, in turn, allowed me to be a participant-observer. Before going to the field, I started going through the Facebook posts of the NGO's to understand how they used their Facebook page to not only educate their follower's but also to promote their programmes. I only focused on observing and collecting educational content posts in forms like images, videos, and write-ups. I only visited the selected social media pages once a day. I chose to do this at the end of the day, as this enabled me to observe all the social media engagement for the day.

I conducted online observations⁹⁷ so that I could explore the contents of the NGOs' posts and the effectiveness of the strategies adopted by the NGOs to elicit reactions from the online community. I looked out not only for various approaches but also for the comments made by members of the online community. I recorded the number of reactions and comments and noted how relevant the comments were to the status update. In regards to the YouTube videos, I watched the videos uploaded onto the

YouTube channels of the NGOs to determine if they were educational or promotional (i.e. if they were meant to advertise the work of the NGOs). I also watched the videos to determine if they were recordings of training sessions.

For the WhatsApp group, I collected information based on all of the interactions in the group. Because the participants used the group for their projects, especially on weekends, I also took care to monitor the interactions on weekends to stay abreast of their interactions. In addition, because the WhatsApp group was regulated, the interactions were strictly educational.

I also observed the websites of the NGOs, specifically their blog contents, to assess the educational content of the blogs and to determine if there was an online repository of learning materials that participants can access.

The primary purpose of using netnography was to check for any traces of researcher bias that may have been inherent in the interview method.

4.8 SAMPLING METHOD

There are two categories of sampling methods used in social research: probability and non-probability sampling. The non-probability sampling method is prominent in qualitative research for choosing the population of the study. Using the non-probability sampling technique, the researcher deliberately chooses samples that reflect specific attributes of the groups within the sampled population (Wilson, 2016). The intention is not to have a statistical representation of the sample, as the probability of selecting each sample is unknown; instead, the features of the population form the criteria of selection. These factors make non-probability sampling techniques suitable for small-scale, in-depth studies (Robertson and Sibley, 2018). The primary sampling approach I adopted for this study is non-probability purposive sampling.

In this approach, the selection of participants is purposive. I chose NGOs because they possess specific attributes that enabled me to explore and gain an in-depth understanding of the issue I set out to study (Vehovar, Toepoel, and Steinmetz, 2016). The features may be socio-demographic or related to particular experiences, behaviours, or roles of people within the sample. Sharma (2017) calls this judgemental sampling, which involves the careful selection of specific samples from a population. Just

as the name implies, purposive sampling allows the researcher to choose a sample based on their specific purpose and because they meet the desired requirement of the researcher to ensure diversity in the research process (Etikan, Musa, and Alkassim, 2016). As a general example, age is a standard selection criterion.

In this study, the relevant population was all NGOs that operate in Nigeria. However, because I had little time (which made it impossible to explore the entire population), a sample of three NGOs was used to gather the data. These organisations were selected using the purposive sampling method. Since I am interested in organisations that focus on women's empowerment, I had to choose organisations that were particularly informative so that I could answer the research questions. I established several criteria when deciding which organisations to study because I needed them to have extensive networks in the country or a national focus. The NGOs under study are anonymised, as noted earlier, and are referred to as "NGO A", "NGO B", and "NGO C".

4.9 METHOD OF DATA ANALYSIS

4.9.1 Thematic Analysis (TA)

Researchers establish meaning from qualitative data by interpreting it. Invariably, qualitative data requires different explanations because the researcher collects a large set of evidence from the research field. Because there is no visible distinction between the process of data collection and analysis, researchers distinguish the process of analysis by combining the analysis and interpretation and often by fusing data collection with data analysis (Alhojailan, 2012).

Researchers recognise TA as a method in its own right. Researchers argue that it is necessary to be able to thematise meaning because it applies to all qualitative research (Holloway and Todres, 2003). In addition to providing the necessary groundwork for establishing valid models of human thinking, feeling, and behaviour, TA also facilitates the process of making meaning from the phenomenon under study (Alhojailan, 2012). TA establishes the premise of qualitative work and endeavours to provide a systematic and transparent form of qualitative research. Though TA emphasises the prevalence of themes, it does so without sacrificing the depth of analysis (Alhojailan, 2012).

TA provides a critical element to data analysis. The researcher can link the recurring themes to the entire content, which ensures accuracy and improves the meaning of the study (Neuendorf, 2019). Qualitative research involves the collection of different data and the extraction of meaning from them. TA helps a researcher to gain a versatile understanding of an issue (Braun, Clarke, and Weate, 2016). Using TA, the researcher can define specific relationships between concepts and make comparisons to replicated data (Clarke et al., 2019).

Analysing qualitative data involves the identification of various patterns across a data set. TA allows the researcher to identify the pattern that best answers the research questions (Clarke et al., 2019). TA is flexible and enables the researcher to approach the data in various ways. TA enables the researcher to focus on analysing meaning across the entire data set; alternatively, the researcher may decide to examine a specific aspect of a phenomenon in depth. TA is suitable for a wide range of research questions and topics because of the various forms it can take. TA illustrates which themes are essential in the description of the phenomenon under study (Daly et al., 1997; Clarke et al., 2019).

The researcher opted for this method because of its flexibility (Clarke et al., 2019) and used Braun and Clarke's six-phase process of using TA (2006). The six phases are as follows.

The first phase of TA is familiarisation with the data, during which the researchers go through the data set themselves to learn the content of the data set. During the familiarisation phase, the researcher identifies and records the features of the data that are potentially significant to the research question.

The second phase of TA is categorising the data to generate initial codes. In this phase, the researcher succinctly records any exciting idea from the data to identify potential information at the smallest level. The researcher ends this phase by compiling a list of codes and collating the entire data in a way that is fundamental to each code.

The third phase of TA involves searching for themes, focusing on a broader perspective. Here, the researcher actively tries to develop themes from the code established in phase two. A theme is relevant to understanding the research question because it identifies meaning from the data set. The researcher develops a theme by combining similar

codes. This phase ends with a set of possible themes, some sense of the relationship between themes, and the collation of the coded data significant to each theme.

The fourth phase involves reviewing possible themes. There are two levels of examining potential themes. The first consists of checking that the themes 'work' for the coded data. The second consists of verifying that they work using the entire data set. Throughout the reviewing process, the researcher ensures that each theme is meaningful and has clear boundaries and a clear central organising concept.

The fifth phase of TA is the process of defining and naming the theme. In this stage, the researcher interprets the themes and determine which interpretation the researcher will use for the analysis, with each theme addressing the research question.

The final phase is producing the report. This step provides the researcher with the opportunity to refine the analysis. Here, the researcher integrates the literature to support their data and determine the order in which they will present the themes. The researcher aims to present a detailed report that is relevant to the field of study such that the reader is convinced of the validity of the researcher's interpretations. The three major themes from the netnography are information purposes, publicity, and educational purposes. Three themes related to empowerment emerged from offline ethnography; they are economic empowerment, psychological empowerment, and knowledge empowerment.

4.10 JUSTIFICATION FOR ADOPTING THE RESEARCH METHOD

I used a qualitative research method because it allowed me to conduct the study in the natural environment of the participants while considering the economic and social factors that influence their decisions and reporting and analysing their views. Hence, using a qualitative methodology allows me to study the phenomenon of "the use of digital technologies by NGOs for the empowerment of women" in a natural setting. Qualitative research is relevant because it is used to find answers to issues by studying different social contexts and the people who live in those contexts.

The method also gives me the flexibility to combine participant observations and interviews as tools for data collection. This, in turn, allows me to make observations and offer more insights into phenomena that may otherwise be overlooked in the interview

process. It also allows me to ask more in-depth questions based on observed phenomena.

The combination of online and offline ethnography is necessary for comparing the data from the online environment with that from the offline ethnography. Moreover, it reduces my bias to the lowest possible level.

4.11 ETHICAL CONSIDERATIONS

When researching any field, it is crucial to consider ethics. I adhered to the University of Technology Research Ethics and Integrity Policy throughout the present study. Confidentiality was a high priority. Data were recorded and processed with the permission of the participants and were used for the purpose for which the participants gave their consent. The data will be kept for the duration of the period needed to execute the project.

According to Bailey, Hennink, and Hutter (2011), five principles guide ethical research, as described here.

Informed consent: The researcher is obligated to provide detailed information about the research to the participants consistently and straightforwardly, stating that participating in the study is voluntary.

Self-determination: Since participation is voluntary, the participants reserve the right to decide whether to participate in a study and can refuse to participate without any adverse consequences.

No harm will come to participants: Throughout the study, the researcher should ensure that the environment or the research field is safe and not detrimental to the participant.

Anonymity: The researcher should protect the identities of the research participants.

Confidentiality: As a prerequisite for protecting the anonymity of the participants, all collected data from the research field must be kept confidential.

In conducting this research, I adhered to the principles set out above. I conducted the study with respect for the dignity and rights of the participants, and I adhered to academic integrity. I described to the participants – both in writing and orally –the

research, their level of involvement, and how the data would be used. I ensured that I obtained the consent of the participants. Because I conducted the interviews in the venues of the programme, the environment was safe. There was no record of adverse events, and no harm came to the participants. In the presentation and discussion of the findings, I made sure to protect the anonymity of the participants by not mentioning the names of any participants. The NGOs were also anonymised. All the data collected were stored appropriately, analysed, and were not designated to fit into any preconceived ideas.

I obtained ethics approval from the University Human Research Ethics Committee before going into the field. I submitted a participants' information and the consent form to the University Human Research Ethics Committee for approval, stating the purpose of the study, the estimated time for the interview, and a call for volunteers to participate in the interview, including a commitment by the participants to participate in interviews and be observed (see Appendix). The ethics approval number for the research is ETH18-2616.

Sometimes, researchers have to conduct research secretly in a physical world, which may have ethical implications. However, the situation is more complicated in the virtual world where communication is anonymous. In line with the position of Kozinets (2015), I disclosed my intention to observe the digital platforms of the NGOs from the inception of the data collection period. The participants were also aware of my plans, and the NGOs, in support of my research, added me to their WhatsApp group.

4.12 REFLEXIVITY

Ethnographic studies must always consider the power relations between the researcher and those in the field. A study adopting feminist standpoint theory is already sensitised to power relations within the groups who are the focus of a study. Nevertheless, it is important to consider the power relations between the researcher and the participants.

In Chapter 2, I noted that I am Nigerian and, therefore, not a foreigner from the perspective of the national focus of the study. I was born and brought up in Nigeria, a large and diverse country, and am aware of cultural conditions beyond the traditions I was brought up in. Nevertheless, I found myself an outsider. I found myself in a location

that was different from the one I was used to. I grew up in a quiet environment that is not as busy as the state of Lagos, and for the 10 weeks I was there, I never got used to staying in Lagos. Commuting was not easy; I had to wake up early to get to my destination early because, most often, I got stuck in the traffic for over an hour, which I was not used to.

I was also an outsider because of my ethnic group, Igbo. All the staff at NGO B are from the Yoruba ethnic group except for one of the volunteers who was from a different ethnic group but could speak and understand Yoruba fluently. As such, they all spoke the same language, and, per their custom, they speak the language regardless of who is with them. They always assume that others around them should be able to understand the language. It was not a surprise to me when they started speaking the language in my presence, but I had to remind them that I am from a different ethnic group and had no understanding of what they were saying.

I am aware that the participants perceived that I had a “privileged status” and that my life was far removed from theirs because of my level of education and because I have lived in Britain and Australia. This complicated the relationship between the participants and me since I was perceived as holding power over the participants, determining which aspects of their lives are important.

During my time with the NGOs, I intended to participate in their training programmes in an attempt to become part of the context of the study. I did my best to blend in. On most occasions, I was invited to lunch with the team and was always involved in informal talks and conversations about issues that were not about the NGO or data collection. On other occasions, lunch was ordered, and we ate at the office. I was able to break through some initial resistance from participants by speaking Pidgin English, which is a different kind of English spoken by Nigerians (e.g. In English you ask, “How are you doing?” and in Pidgin, we ask, “How you dey?” In English, you ask, “What are you doing?” and in Pidgin, we ask, “Wetin you dey do?”). This endeared me to the participants, making it easy to relate with them. In addition, my status as a researcher positioned me as a co-learner with the participants, who shared the same purpose.

However, despite my attempts to create common ground, I was never going to be accepted in the same way as other volunteer trainers. As a volunteer coming from a Western university, NGO A saw me as an asset and proceeded to use me as a facilitator for one of the training sessions. For three weeks, I facilitated the unit on leadership. Therefore, in addition to my fieldwork, I also had to prepare materials to deliver to the participants. In NGO B, I was assigned to deliver a presentation on emotional intelligence in the workplace. Despite being a Nigerian and speaking the Pidgin language to blend in, I still stuck out like a sore thumb. The staff saw me as an esteemed individual and always sought my input for decisions. The participants also came to me for advice on various issues.

I did my best to ensure that my “privileged status” did not interfere with my ability to collect quality data from the interviews. I endeavoured to make sure the participants were at ease with me. However, I was constantly reminded that my purpose was different from theirs and that my assumptions were not necessarily appropriate for the context; I also learned that a researcher who is also an activist must be able to maintain their focus on the research and understand clearly the role she has been assigned within the community.

On my first day with NGO B, I realised that they were running a campaign for one of their programmes that aimed to help women start their own business. In a bid to blend in with the people, I decided to tag along, as I felt it was one of the ways I could understand the operations of the NGO. Therefore, we went with a sound system to play music to attract students. We set up in front of a students’ hostel with some refreshments so that the students would be patient as they listened. I assumed that the programme was open to all females regardless of their educational background. Therefore, I innocently walked up to a man whom I believed would be interested in having his wife attend. He was interested and asked how he could get his wife to register for the programme. I walked up to one of the staff of the NGO to ask about the process of registering, and to my surprise, I was told the programme was open only to students and post-graduates. I could not bring myself to tell the man that his wife could not participate in the programme because she had no education and because it was against all I believe in. As a feminist, I cannot stand discrimination and injustice, so I had the staff tell him.

In this section, I have attempted to position myself as a researcher vis-à-vis the participants of the study, highlighting aspects of the power relationships at play while I was with the staff and participants in the training programs, collecting data from them.

4.13 CHAPTER SUMMARY

This chapter has discussed the research methodology used in the study. The first section discussed the epistemology and research position. The second section presented the qualitative case study approach. The qualitative methodology and the theoretical orientations enabled an ethnography of the three case studies. I combined online and offline ethnography in this study to identify how NGOs use digital technologies to empower women in Nigeria and to determine the challenges faced by NGOs and participants when using digital technologies. The next section provided relevant information regarding the sample and selection of participants. It also discussed the data-collection process, which comprises participant observations and interviews. This section outlined the process of data analysis and the ethical considerations of the study. The last section provided an overview of the NGOs and the programmes studied. The following chapters present the findings and offer a discussion of the results.

CHAPTER FIVE

FINDINGS

5.1 INTRODUCTION

This study aimed to explore the women's empowerment programmes organised by NGOs in the form of NFE using digital technology. Furthermore, this study explores how these programmes contribute to the empowerment of women. According to the literature, digital technology allows marginalised and rural women to gain benefits or become empowered. However, this analysis and presentation of data prove otherwise, as the data show that the digital divide still exists, thereby exacerbating the divide between the educated and uneducated women. The divide exists in terms of access to and use of technology, as well as social capital. The findings show that not all women are given equal opportunities to participate in empowerment programmes because many women are digitally illiterate or do not possess any formal education.

This chapter presents analyses of the qualitative data gathered through online and offline ethnography. It elucidates several critical questions using thematic analysis. The offline ethnography addresses the empowerment programmes organised by the NGOs, the effectiveness of these programmes, and the challenges encountered by NGOs and their participants.

The online ethnography addresses the issue of whether NGOs use digital technology appropriately to encourage women's participation and skill-building and whether the participants interact with the NGOs using platforms designed to enhance such participation. It also answers the question of whether NGOs use technology for women's empowerment via NFE. It also helps in answering the questions of whether claims match reality and of where the benefits of digital technology lie (if at all) for all parties. Importantly, the analysis also addresses the challenges the NGOs and participants face when using digital technology. It will also consider the participants' interaction with NGOs online to highlight whether they feel they have a 'voice', and whether they feel invited, coerced, or excluded. Importantly, it will document what they expect from NGOs and whether these expectations are met. A thematic analysis aided in drawing attention

to the recurring themes from the data collected. The three major themes from the netnography are information purposes, publicity, and educational purposes.

From the observations, an important consideration was whether NGOs were inclusive and participatory in their programmes. The key questions were as follows: Are NGOs aware of barriers to equal participation? Do they actively support women to overcome structural barriers to achieve equal participation? From the observation of the NGOs programmes, it is apparent that the digital divide influenced participants' choices of whether to attend a programme. The divide in the knowledge and application of digital technologies. For NGO A and NGO B, participants needed to have a basic knowledge of digital technology and how to use it for online learning.

Three themes related to empowerment emerged from offline ethnography: economic empowerment, psychological empowerment, and knowledge empowerment (which comprises of technological knowledge, financial literacy, gender awareness, human rights and health education).

This chapter presents the findings of this study, beginning by setting the context by introducing the three NGOs. It continues by setting out the programmes and their objectives. The sections that follow provide the findings related to the target audience, the programme itself, and course content. The chapter also lays out the structure of the programme before going on the answer to the research questions.

Each NGO will be presented under pseudonyms to maintain the confidentiality of the participants. Each NGO will be identified by a letter (A, B, or C). All staff who were interviewed were programme directors (PDs). For example, PDA 1 is a programme director from NGO A and was the first to be interviewed. Participants are identified in a similar way (e.g. PDC 5 is the fifth NGO C participant to be interviewed).

5.2 BACKGROUND INFORMATION ON CASE ORGANIZATIONS

This section provides an overview of the NGOs and the programmes they provide for women's empowerment. Table 3 shows each NGO, its focus, the number of programmes observed in this study, and the number of participants in the observed programme (as well as their gender). The summaries of their missions and programmes provided below are taken from their online presences. However, quotes from these sources will not be

used, as these could be used to identify the NGO and the participants – especially the staff.

Table 3: Summary of the NGOs

	NGO A	NGO B	NGO C
	International	National	Local
Number of participants	38	100 across three programmes	5
Number of programmes observed	1	3	1
Participants	Male/Female 5 male and 33 female	Female	Female

5.2.1 NGO A.

NGO A is an international non-profit organisation that was founded in 2007. The organisation’s headquarters is in Lagos, and it has an operational office in the US.

The core focus of the organisation is to empower African women to become leaders with influence, agents of change, and innovators of technology to benefit Africa through experiential science, technology, engineering and mathematics (STEM) education, leadership, and entrepreneurship training. The NGO exists to provide the opportunity for African women to enter the science and technology sector and ensure that these women are engaged in technology innovation and entrepreneurship for the benefit of Africa.

The core values of the organisation are the power of women, education and leadership, the influence and contributions to the society, technology innovation, entrepreneurship, localisation, and cultural sensitivity.

The following section discusses the programme organised by NGO A observed for this study.

5.2.1.1 Coding boot camp

The programme is a one-month intensive coding boot camp. The programme provides software programming training to African youth, providing opportunities for the participants to practice what they learn through project-based activities aimed at replicating the daily work environment and developing their self-confidence as transformation agents, technology innovators, and entrepreneurs. It involves intensive training with a focus on simulated, real-world application. The participants can integrate existing technology and initiate their technology start-ups. The NGO also provides opportunities for participants to meet and network with industry professionals and role models to provide inspiration and motivation to encourage them to remain in the technology profession, thereby shaping them to become future leaders.

The programme aims to empower African youth in technology and software programming by providing cost-effective NFE, quality instruction, and individualised mentorship, thus giving learners the skills needed to build technology enterprises. The goal is to address the inequality in formal education systems by providing an accelerated path for motivated African youth to develop the technological skills that are in high demand today. The programme is open to undergraduates, graduates, individuals who dropped out of school, and ICT professionals who are African youths between the ages of 18-30 years with little or no experience in coding.

The training course focuses on software development, but it also includes sessions on entrepreneurship and leadership. The software development programme comprises programming languages, full-stack web development, and mobile app development. The organisation provides several development platforms, code integration tools, and software testing and debugging tools to participants. In addition, the programme teaches the participants agile development methodologies and fundamental factors such as accurate documentation and business ethics that are needed for one to succeed in a technology-driven career. The programme is project-based and collaborative, and it includes real-world exercises. Additionally, the programme teaches participants how to build their portfolios and CVs while preparing them for job interviews, salary negotiations, and public speaking events (NGO A website, n.d).

5.2.2 NGO B

NGO B is a non-profit organisation in Nigeria that was established to motivate more girls to pursue careers in technology and to advocate for the use of technology by women entrepreneurs in civil society to help them enhance their socio-economic capacity and ability to speak about the issues affecting their lives.

NGO B was established in 2008 as a solution to a study that showed that women, who make up approximately half of Nigeria's population, were still behind in terms of their knowledge and use of technology despite the notion that ICTs make a significant contribution to the growth and development of a nation. The mission of NGO B is to educate, connect, and empower women in Nigeria through active engagement with ICT via training, mentoring, and research.

The vision of the organisation is to create a nation in which women and girls can create and effectively use ICT for learning, activism, entrepreneurship, and professional activities. The organisation's strategy for achieving its goal is based on training in technology, mentoring, work placement, and research. They collaborate with local and international NGOs as well as educational and research organisations.

Three programmes organised by NGO B were observed in this study: NGO B Girls' Technology Programme, NGO B Girls' College, and Being Empowered with ICT

5.2.2.1 NGO B Girls' Technology Programme

The Girls' Technology Programme is an initiative aimed to motivate schoolgirls between the ages of 13-17 years in Nigerian secondary schools to develop an early interest in science-and-technology-related careers. The camp is intended to multiply the number of women who work with and use technology by eliminating stereotypes about the gender-appropriateness of technology. The camp provides women with information about careers in technology and practical applications of technology, introduces female technical role models, provides access to mentorship, and emphasises the significance of education.

The organisation combines workshops, presentations, excursions, and leadership exercises to shape young women who are strong, intelligent, focused, and prepared for living and working in an increasingly technology-driven world.

During the fieldwork, NGO B acquired a building, and they moved to their own building in one of the high-end areas in Lagos where the elite reside. It is a quiet, spacious, and serene area surrounded by nature. In this area, they had a one-month-long summer STEM boot camp for young girls. This programme was for young girls between the ages of 13-18 years. The approach to learning was both theory-based and practical. The girls were told what to do and were required to replicate tasks in class.

5.2.2.2 NGO B Girls' College

The Girls' College is a technology programme designed to inspire girls in public secondary schools to pursue computer science careers. This programme aims to complement the existing computer science curriculum in the schools, which is often more theoretical than practical. The NGO organises the year-long programme after school. Participants go through hardware and software courses, such as computer architecture, scratch programming, and Alice programming. The NGO notes on its website that through participating in the technology programme, the participants build their confidence in writing programmes, developing applications, and creating digital content. The programme that involved secondary school students was organised at the end of the day. NGO B visited three schools in the district, and I was able to go to two schools with them. While one of the schools had a computer lab with functioning computers, the second school did not. It was the responsibility of the NGOs to provide the laptops and generate the electricity required. The NGOs had volunteers who tutored the students, but because there was no access to the Internet, the students were made to perform offline tasks, and the trainers gave coursework to the students to take home, from where they could request Internet access from their parents (NGO B, website, n.d.)

5.2.2.3 Being Empowered with ICT - Sustaining Her Enterprise, Career, and Network with ICT

Being Empowered with ICT is an entrepreneurship and ICT programme for young women who are about to start (or who are already on) an entrepreneurial or career journey. The overall goal of this programme is to expose women to entrepreneurship and teach them about the best practices for integrating technology into their enterprises.

The origins of this initiative were in a programme for 100 young women participants who were between jobs but intending to gain ICT skills for businesses. This initiative began in 2015 in the city of Ibadan. The programme was organised in partnership with one of the leading banks in Nigeria and was designed to equip aspiring female entrepreneurs and individuals who are not gainfully employed with relevant business and technology skills to develop and manage a profitable and business. The training lasted for six months.

The objectives of the current programme are to identify and learn digital literacy and tools to promote their business, to increase the use of technology to promote and assist small enterprises, to provide financial assistance to young female entrepreneurs for their start-ups, and to provide a platform for young women to pitch their start-up business ideas to potential investors. Finally, the organisation provides support networks to women in finance, technology, and advocacy (both online and offline), which they can utilise to promote their businesses and career pursuits (NGO B, website, n.d).

During one of the outings to invite participants to the programme, based on the situations I observed regarding the segregation between educated and uneducated participants, I asked who decided who chose the programme participants. I was informed that the sponsors decided who could participate. I also learned that this allowed the sponsor to monitor and evaluate the impact of the training.

The programme was organised every Saturday from 10:00 a.m. to 4:30 p.m. for eight weeks. The approach to learning was theory-based.

5.2.3 NGO C

NGO C was also established in 2008. It is a local NGO, located in the northern part of Nigeria, Kaduna, whose mission is the provision of multi-sectoral interventions for women and girls' empowerment through awareness-raising. The empowerment comes in the form of capacity building, the dissemination of information, advocacy, and crosscutting community service projects. The organisation believes in generously sharing knowledge and resources to increase learning and in investing in and mentoring leaders to promote change and influence.

The objectives of NGO C are to provide a capacity-building and mentorship programme to motivate women and girls to be their very best and excel in all they do. Using various platforms, the organisation provides information on health, economic issues (e.g., financial literacy and entrepreneurship skills), and socio-political issues (e.g., gender-based violence), thereby encouraging women and girls to participate in their civic duties and get involved in the politics in Nigeria. The organisation also acts as an advocate for girls' education. NGO C provides training on public speaking to equip women with the skills needed to communicate with leaders and improve their civic engagement. This NGO provides several programmes; the programme observed for this study was the Exceptional Empowerment Seminar.

This programme is a quarterly seminar organised to provide knowledge about topical issues. The seminar aims to take the participants through a self-discovery journey to enable them to identify their strengths and weaknesses and to improve their lives. The NGO claims that this programme has 'enlightened' about 161 girls and 101 adults from 2008-2014.

The seminar includes interactive workshops on leadership, financial literacy, entrepreneurship, and communication skills. In addition, the participants are encouraged to ask questions on topical issues (NGO C, website n.d).

The next section will address the target audience for the programmes organised by the NGOs mentioned above.

5.3 TARGET AUDIENCE FOR PROGRAMMES

The central aim of all three NGOs is to empower women of all social classes. However, that seems not to be the case with the programmes observed in this study, as was revealed through interviews with NGO staff and participants in each of the programmes. For the programmes of NGO A and B, all the participants were either enrolled in formal education or had completed at least one qualification; some had two degrees. Although the programmes were organised for young girls, two girls from an orphanage home also were registered by the home where they stayed. The programmes offered by NGO B are open to women aged 13 and above, whereas the programme offered by NGO C is

offered to mature women, who are likely to have family responsibilities and who might not have completed secondary education.

Although the NGOs appear to target women, NGO A recruited male and female participants because of the backlash they received from the public for offering a programme only to women, according to PDA 1. There were more male participants in the programme than female participants. She said, “The programme is open to the general public who are interested in programming, but one must have the basic tech skills”. Further, she attested to the fact that, from its inception, the programme had always had more applications from males than females. She did not state that men were more likely to meet the criterion of “basic tech skills”, though that appeared to be the case.

Despite the perceptions of PDA 1, some participants had previously enrolled in one or two online courses, although some women had no prior knowledge about programming languages or becoming a website developer, they were able to learn quickly because of the members in their groups and the WhatsApp discussion forum. Furthermore, NGO A required applicants to fill an online form after which the successful applicants will partake in an online assessment. Only applicants who passed the assessment were invited to enrol for the course. As has been stated above, people needed to have basic tech skills to complete the application process. Thus, people who lack basic digital literacy skills are not accepted into NGO A’s empowerment programmes.

Although the programmes are a form of NFE, one of NGO B’s programmes targeted women who were already enrolled at the university, a condition imposed by their sponsor. Another programme was organised for girls in public schools who were not privileged to have access to computer training. The NGO provided laptops and computers for training, and they provided a back-up generator for electricity. Some of the participants of the girls’ technology programme were from orphanages, according to PDB 1.

NGO C is located in a rural community and targets women who have no formal qualifications and has no skill requirement. PDC 1 referred to the target group as ‘indigent’, adding that because they do not know how to use technology, they were not

interested in learning with digital technology. However, when I spoke to the women, they expressed their desire to learn how to use technology. PC 5 said (in Pidgin English), “I won learn how to use computer so that I go fit they press that kyn one and so that I go fit they do wetin other people for city they do. (I want to learn how to use a computer so that I can operate technology effectively and be able to do what the people in the city do with technology)”. A needs analysis was carried out in this NGO, and the seminar programme was tailored to the interests of the women involved in it.

As expected, the structure of the NGO programmes differed. However, they shared the central themes of empowering participants to improve their lives and making society better via NFE using digital technology. However, NGO C used only digital technology to project the training, and the women had to learn via the traditional way (i.e. note-taking with pen and paper).

The above finding shows that the target audience for the training provided by NGO A and NGO B was educated women, with NGO A also including male participants. Meanwhile, NGO C’s participants were uneducated women.

The following section provides an overview of the programmes and course content organised by the NGOs.

5.4 PROGRAMMES AND COURSE CONTENT

The programmes provided by the three NGOs can be considered NFE programmes. None is compulsory, and none leads to a qualification that is formally recognised, although some previous participants had been able to use the skills they had developed to gain employment. The programmes are developed outside formal structures for the development of officially sanctioned programmes of education. The NGOs developed programmes in different ways. NGO C conducted a needs analysis to ensure that the content of the programme met the needs and expectations of the participants. Interview data from programme directors in NGO A and NGO B showed that both seemed to be influenced by the requirements or expectations of their sponsors and industry supporters. One of the programmes was a collaboration with a major international technology company’s campaign for African women – the external influence on this programme’s content and expectations was apparent. In a

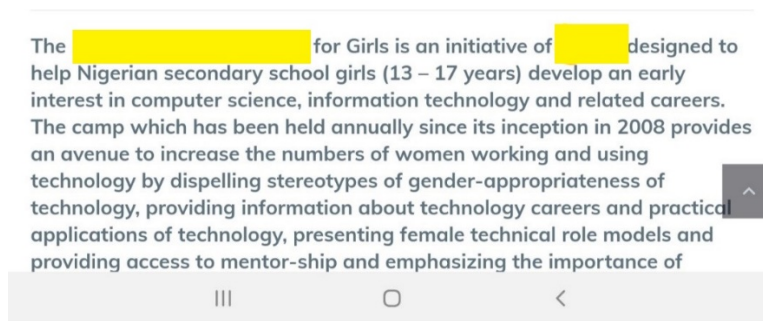
conversation with PDB 4, I asked why the programme was limited to university students. She said that it was a requirement made by their sponsor to effectively monitor and evaluate the success of the programme. However, the NGO was not given information on how the funders go about the process.

The programme offered by NGO C comprised several sessions on separate but related topics. Financial literacy was one of the major concerns of the women, who had indicated that they wanted to know how to use their money judiciously and how to invest wisely in order to have savings for the future. Other topics were clearly identified as part of this programme (e.g. monitoring and evaluating of a business start-up).

The programmes offered by NGO A and NGO B focused on the development of skills in ICT, though they had different orientations. NGO A focussed on creating digital platforms to solve societal problems, whereas NGO B emphasised entrepreneurship, the processes involved in setting up and running a business, and some of the legal aspects of doing this. Nonetheless, both included topics on programming languages, coding, and robotics so that participants would be trained for jobs in technology industries (which currently make up a significant employment market in Nigeria) and might be competent to work in any other industry.

The use of social media for information dissemination and marketing was an essential aspect of all programmes. The development of leadership skills was important for all three programmes, although for NGOs A and B, the emphasis was on being able to influence actual and potential business partners as well as consumers. These two NGOs also included content on gender, equity, and equality. NGO B's participants, many of whom were young women, were made aware that, despite the stereotypes associated with women and STEM, there is no reason why women should not have technology-related careers (Image 1).

Image 1: Image depicting one of the aims of a programme



Source: NGO B website

The finding above indicates that while NGO C conducted a needs analysis before developing a programme to meet the needs of the prospective participants, NGOs A and B developed their programmes to meet the requirements of their sponsors. While NGO A and NGO B had similar programme contents centred around technology, NGO C was more concerned about the economic empowerment of their participants. The following section outlines the structure of the training organised by all three NGOs.

5.5 STRUCTURE OF TRAINING

All NGO programmes were geared toward building the capacity of the participants to promote basic knowledge of socio-economic, technological, financial aspects, as well as business management.

The learning resources provided to participants considered their particular circumstances. Thus, the organisation with the rural audience delivered their training sessions in a pictorial form to enable the women to follow and understand what was being taught. This was done under the assumption that the participants had little or no familiarity with technology or standard English. The after-school programme provided the participants with printed resources because of the hands-on approach of teaching and their familiarity with this approach through their experience in high school. In the other programmes, PowerPoint presentations and slides were the predominant modes of presentation, again because participants were used to them and because they are standard in industry training.

The participants in the programmes offered by NGOs A and B were expected to follow the guidelines on the printed resource and carry out the set activities using the

computer. For the programmes offered by NGO A, participants were expected to have access to a computer of their own in order to complete the learning tasks; the participants connected their laptops to the Internet using mobile hotspots, which enabled them to access online materials for their course work. This was the case for two of the programmes offered by NGO B. The after-school programme provided access to computers for girls, who did not have access to the content and learning resources at their school. The NGO often goes to the schools with their laptops for the girls to learn on. The approach to learning used in both NGOs can be described as 'learning by practice'. The participants were set tasks to complete. They learned on their own and only requested the attention of the tutor when they found an aspect of the training difficult. Programmes offered by NGO B included basic digital literacy skills, for the target audience of secondary school students.

The content of the programmes offered by all the NGOs drew on the expertise of local experts, including employers and entrepreneurs from the ICT industry, as well as graduates from previous offerings of the programme. One of the NGOs brought in trainers to teach the participants how to make bags using Ankara (African print), as a way to consider a potential opportunity to set up a business. The NGOs ensured they employed people who were skilled in entrepreneurship training to come and speak to the participants about the basic skills needed to start a successful business and how to monitor and evaluate the growth and success of a business.

This access to the expertise of the wider community was a key aspect of the programmes for NGO A and NGO B. Both NGOs incorporated a competition in which the participants had to develop a business plan that they were to pitch to potential investors and industry experts at the end of the programme. In NGO A, at the end of every week, the participants presented the progress of their projects, and they were scored and given constructive feedback. I was part of the panel who scored the participants during a session. My notes indicate that the following kinds of feedback were given: the strengths and weaknesses of the presentation were explained, and the proposed project was analysed, with suggestions for making it more feasible. We also advised each team about available resources to guide them in the development of their project. At the end of the programme, the winner or winning team received a cash award or a sponsorship to help

them make their business plan a reality. The outcome of both programmes was to ensure the participants were employers of labour and that they would have a source of income without having to rely on the government.

The sense that participants in these programmes were to be 'bettered' in some way can be seen in the way that participants were labelled 'beneficiaries' by the NGOs. As PDA 1 said, "At the end of the training programme, our beneficiaries go home with some money to help them execute their projects".

PDC 5 said, "As part of our commitment to empowering our programme beneficiaries, we give them some financial aid to support their business".

Image 2: The winning group for the project in NGO A



Source: WhatsApp group page

The image above is a picture of one of the winning teams receiving their prize.

In NGO A, the participants were divided into groups of five and were asked to choose a societal problem, prepare a business plan, and develop a full website that met people's needs. Throughout the programme, the individuals in the group worked together to develop a website or a plan to execute their solution. At the end of the programme, the groups pitched their ideas to a group of judges sourced from reputable companies. The winning team received a monetary prize and mentoring to ensure that their ideas were executed.

The primary mode of delivering the programme was through PowerPoint presentation, with NGO C delivering training in pictorial form. NGOs A and B combined theoretical and hands-on training. NGO A divided the participants into groups to foster collaboration. NGO A and NGO B required their participants to develop a project, and the winning team/participant is awarded a monetary prize and a professional mentor to help bring the project to life.

The following section outlines the purpose of the programmes.

5.6 PURPOSE OF THE PROGRAMMES

Despite the focus on ICT and digital technologies, in all the programmes, the content of the training include gender awareness, leadership, monitoring, and evaluation. Some of the NGOs also include vocational training and lessons on financial literacy. The purposes of the programmes vary, but empowerment through the development of knowledge and skills was almost taken for granted. All the programme directors who were interviewed agreed that one of the primary aims of organising their programmes is to equip participants with the basic knowledge that they need to live in society.

More specifically, the NGOs aimed to ensure that their participants were able to utilise technology for personal and professional development. To a greater or lesser extent, each NGO emphasised opportunities for employment and the development of skills as entrepreneurs, which would, in turn, create employment. Finally, especially in NGO C, there was an emphasis on financial literacy.

The purposes of the programmes are grouped into three themes: knowledge empowerment, economic empowerment, and psychological empowerment.

5.6.1 Knowledge Empowerment

Besides the economic benefits associated with the programmes, the NGOs also attempted to provide general knowledge about issues that affect women, especially in the online space. The NGOs agreed that we live in a society where we find ourselves with information overload. They wanted to be able to direct their participants to information that is useful to them in their daily lives and to develop knowledge that might help them achieve success. NGOs A and B emphasised the importance of digital

literacy. Knowledge empowerment is grouped into the sub-themes of digital literacy, gender awareness, and financial literacy.

5.6.1.1 Digital Literacy

The programme directors believe that because of the digital revolution, women need knowledge about the use of technology if they are to take their place in society. Thus, a major aim of the programmes, especially for NGOs A and B, was to increase the number of women in the field of technology. They aim to support women in redressing the balance. As PDA 1 said, “In society, we have more males in technology. We want to provide a level playing ground for women in the world of technology”. The increase in the global interest in women in science, technology, engineering, and mathematics (STEM) prompted the NGOs to focus on providing STEM education to their participants. They aim to promote gender equality in STEM.

Digital literacy was also seen as a vital component of supporting women in decisions they might make in their everyday lives. PDB 3 said that women fall prey to online predators who lure them out with the promise of buying things from them, and these predators end up raping these women and committing acts of violence on them; we provide some training on how to stay safe online.

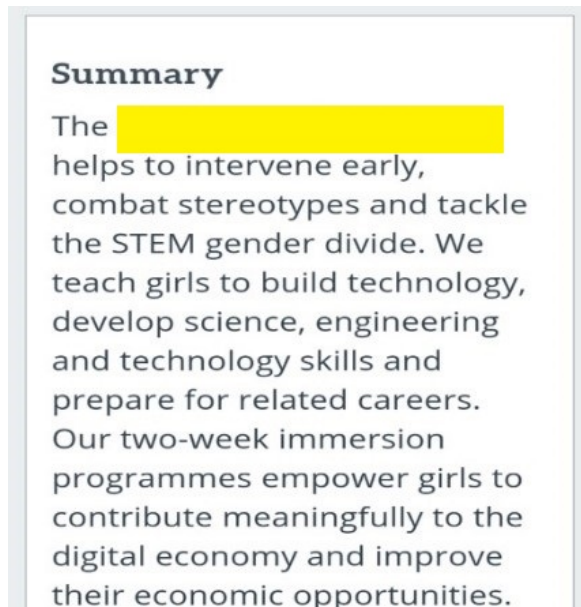
Image 3: An image depicting the aim of NGO B



Source: Facebook

The image above is the wallpaper from the Facebook page of one of the NGOs, demonstrating a commitment to the development of knowledge and skills in IT.

Image 4: An image from NGO B depicting the aim of one of their programmes



Source: Facebook

The image above is a summary of the purpose of one of the investigated programmes.

PDA 2 said their programme is intended to stimulate the interest of women in STEM and careers in technology. She added, “We have few women in STEM-related careers, and with our programmes, we hope to encourage more women to take on a career in STEM fields”.

Similarly, another aim of NGO B is to increase the interest of girls in STEM-related fields. As PDB 3 said, “The number of young girls in the STEM field is low when compared to the boys. When you go to universities, there are more boys than girls in engineering or mathematics [courses], so we want to start early to encourage girls to become interested in STEM”.

PDB 3 emphasised the importance of familiarity with technology,

Look around us. Technology is taking over. There is nothing we do that does not require technology. As such, we need to be sure that our participants are on par with the technological requirements for competing in the global market.

The NGOs also aimed to provide their participants with the resources they need to contribute to the development of society.

PDA 1 said the following, “we aim to equip our participants so that they can use technology to solve a problem, problem solving solutions. That is what we are looking for”.

PDA 2 made the following claim:

Technology is the “in” thing. If you want to survive in this society and in the near future, then knowledge of technology is important, and that is why it is necessary that we provide this knowledge to our participants so that we can have a future generation where no one is struggling to use technology.

Still, in line with technology training, a major theme was increasing the ability of participants to learn how to use programming languages and code and how to develop web and mobile-based applications and robotics.

PDA 2 said,

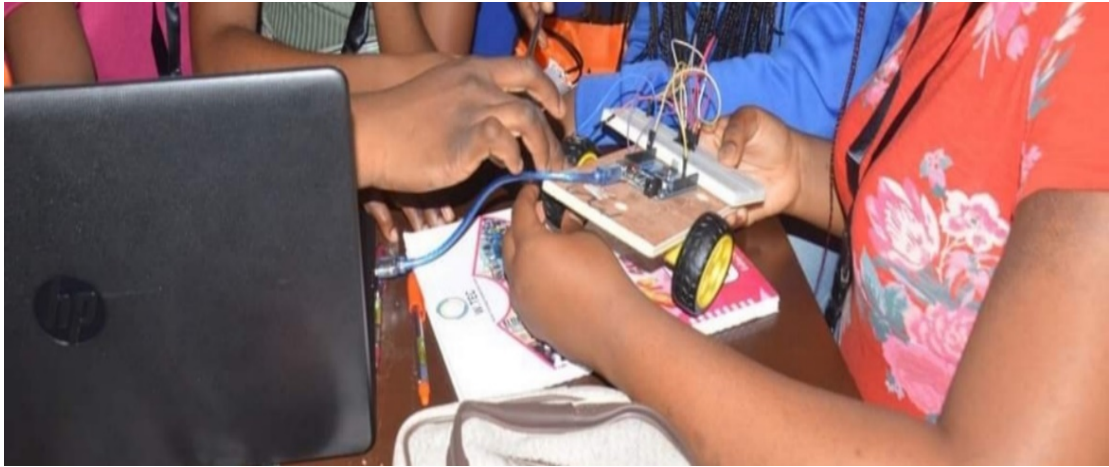
the first step to getting into the field of technology is to learn the languages. This is because computers and technology run with command, and a good understanding of the programming languages is a step in the right direction. Learning these languages also makes it easier for people to start developing codes and software applications.

Similarly, PDB 4 said that,

the knowledge of programming languages comes very much in handy for people who are transitioning to technology-related fields. This is because to understand how the technology works, you have to understand the language that makes it work.

Considering the future predicted by scientists that the world and some workplaces will soon be taken over by robots, NGO B also introduced training on robotics in one of their programmes for young girls, according to PD1. She noted the importance of making sure girls get a first-hand understanding of robotics. She also said that because the training allows the participants to build a robot using the materials provided, it stimulates their thinking process and increases their interest in robotics. Image 5 below depicts one of the sessions on robotics.

Image 5: Training session on robotics



Source: Facebook

Besides increasing the awareness for the need of women in STEM-related fields, the NGOs also aimed to ensure that their participants developed the skills they need to keep working in their places of employment.

As PDA 2 said,

Because technology is now used in every area of our lives, especially in the workplace, we aim to ensure that our participants are upskilled in technology so that they can be more effective in their place of work.

PDB 3 said,

Now every job application requires the applicants to have a certain degree of knowledge of technology. As a result, one of our aims is to ensure that through our training, these participants will increase their knowledge of technology and how it works, thereby giving them a competitive advantage when seeking employment opportunities.

In line with starting up a business, another session of the programme organised by NGO B addressed the issue of how individuals can utilise technology to promote their businesses. The participants are taught practical steps that they can follow to use mobile technology and social media sites for networking and expanding their business.

This, according to PDB 3, is because, with the increase in the importance of the virtual market place, aspiring entrepreneurs must understand how to leverage social media and digital technology to promote their business.

PDA 2 said that,

We now have a global marketplace where anyone can sell their products to people around the world, and so there is no reason why women should not use this opportunity to promote their businesses to the global market and with our programmes, we guide the participants through practical steps to start an online business.

For the participants, for the most part, the reasons for taking part in the programme were similar to those expressed by the NGOs and the programme directors. One of NGO B's programmes was aimed at girls of high school age enrolled in a public high school without computing facilities and education. Some of the participants were enrolled in the programme because of their interest in the topic, as PB 13 explained: "I have always been fascinated with technology and robotics. I love creating things and assembling things". However, at least one was there because her parents had compelled her to be there during her school holiday. PB 12 said,

I have always been interested in music; my sister is the one who has an interest in technology, but because it is the school holidays and my parent does not believe music is a career, they enrolled me to come to this programme with my sister.

In other words, she was forced to be at the programme although she had no interest, and so, this participant was not involved in the programme. When her group was working and developing their project, she stayed by herself and refused to interact with the other participants.

Participants in the programme offered by the international NGO, NGO A, were clear that the knowledge of technology is required for their careers.

PA 1 said the following,

Technology is the future. A lot of things are intertwined in technology. In my field we apply technology in everything we do, so I want to improve my knowledge of technology. As such, it is not a waste of knowledge.

Another participant who is considering a career in cybersecurity also believes that individuals need to have a practical understanding of technology to live in contemporary society. PA 3 said,

I wanted to go into a career in cybersecurity. I felt that coming to the programme would enlighten me. I do not know what it entails, so I thought coming here would help me. Our generation favours technology, so if you should remain doing things the normal way, I do not think you will be able to thrive in later years. So, it is better if you go into technology because in later years, everything will be done through technologies.

Some of the participants who already have a business attended the programme to learn how to use technology to promote their business. PA 1, who has an online blog on an outsourced provider, said she attended the programme to learn more about the process of developing a website to enable her to create her platform and reduce costs.

A few participants from NGO A focused on the opportunity to gain knowledge and skills from their involvement in the programme. PA 2 said, "The ability to use the programming languages gives me an edge over my colleagues, though I intend to start my own business".

PA 3 said,

There is no field of study that does not need coding. Coming to this programme will give me first-hand knowledge, and the things I want to do are related to this so that it will be an added advantage for me.

5.6.1.2 Gender Awareness

While attempting to stimulate the interest of girls in the STEM field, all the NGOs also educated women on the issue of gender stereotypes and the need to dismantle them. NGOs A and B introduced a session on gender awareness. This session was introduced to make the participants aware that technology-related careers are not restricted to the

male gender. NGO B targeted at young adult females emphasised the stereotypes associated with women and negated such stereotypes, advising that there is nothing wrong with women having careers in STEM.

PDA 1, in one of the sessions, said that there is no job meant for men alone neither is there a job meant for women. “All the jobs out there are available for both men and women. However, while clamouring for equality, we also need to clamour for equity”.

Similarly, in another training session by NGO B, one of the facilitators of the programme encouraged women to embrace careers in technology. She said the notion that women’s place is in the house or the kitchen is false. She said that women can define their stories and that women can work in the field of technology and still be mothers and wives. Women can be anything they want to be; they only need to believe in themselves. PDB 3 said,

women have grown up thinking that technology-related fields are exclusive to men. This has limited them from exploring careers in technology and focusing on other areas that are not technology-related.

One of the goals of the NGO’s training session is to let women know that they are capable of excelling in technology-related careers to the same extent that men do.

Another aspect of the training session by NGO B focused on the legal aspect of setting up a business. While it is important to be able to start a business, NGO B felt it necessary for their participants to also understand the legal aspects of establishing and registering a business. Thus, they also provided training on the legal implications of setting up a business. As PDB 4 said,

Starting a business is not all about setting up a shop, if you aim to have national customers, you need to register the business and have good branding. So, we need our participants to have learned all the necessary tools to help them become a successful entrepreneur and also to have knowledge of the legal implications involved in setting up a business.

5.6.1.3 Financial Literacy

To start a business, it is crucial to learn how to manage one's finances. The NGOs ensured that their programmes included sessions dedicated to financial literacy. The focus of these sessions was to educate participants on how to save and manage their finances to ensure the sustainability of their businesses.

This was particularly important to the women in the programme run by NGO C. NFE programmes may be the only opportunities for some women to learn how to make wise financial decisions. PDC 5 said that the programme was organised to assist women with financial literacy and to provide aid to enable participants to sustain their businesses,

These women run businesses but do not have any savings. As a result, their businesses do not grow. We organise these programmes to teach them the basics of savings and strategies to promote their businesses.

She also stated that the participants are the breadwinners of the family and that this has a huge impact on the finances of their businesses. Because these women often have to collect money from their businesses to support their families, the growth of their businesses can be hindered. She continued,

These women need to understand how to plan their budget and spending. Without this knowledge, they will remain where they are without advancing, but with the financial literacy programme, they will be able to learn how to manage their finances better.

PDA 2 believes that the participants needed to understand the financial implications of running a business. Without financial literacy, they may not be able to sustain their business.

We want participants who want to become entrepreneurs to learn the basics of budgeting and how to handle the finances of a business. This will enable them to manage their funds and allocate financial resources judiciously.

PDC 5 expressed that “to start a business, it is crucial to learn how to manage one's finances”.

PDB 4 claimed that the ability to organise the financing of a startup enables the individual to operate the business successfully.

Starting a business in itself is stressful and daunting. If the individuals do not have their finances in order, it can be disastrous, and that means the business will not survive for even one year. Hence, it is important to educate our participants about the financial implications of starting a business and how to organise their finances.

PDB 3 said that many companies last for less than two years due to poor financial planning.

When starting a business, you are on a strict budget and need to be able to manage the limited budget effectively. With our programme, we aim to ensure that we equip our participants with not only the basic knowledge of budgeting but other models that other successful businesses have used to manage their finances.

In addition to providing financial literacy, the NGOs also taught the participants skills for winning potential investors for their business. PDA 1 said the following,

The most important factor when you are considering starting a business is financing. In Nigeria you have to be really good to attract potential investors, and that means having a good proposal, being confident, and seizing any opportunity that comes your way. As a result, we ensure that the participants start by developing their proposals and guiding them through the steps, after which we get them to pitch the ideas for vetting. For any proposal that is not strong enough, we provide feedback to the participants so that they can work on making it better, and because they work in a group, we ensure that every member of the group has a chance to pitch the ideas so that they can improve their confidence.

PDB 4 said,

In Nigeria obtaining a loan to start a business is quite difficult, especially if you do not have collateral or if you are not among the wealthy people of Nigeria, but we see that there are a few philanthropists who operate foundations that award money to startup businesses. These people are the target investors who we advise our participants to approach. But, of course, you need to have a solid proposal if

you hope to get any money from them, and in most cases, these philanthropists attend regular events, and we want our participants to be able to pitch their ideas in three minutes to gain their attention and possibly get invited to pitch the full idea. As you can see, every day at the end of the session, we get at least one participant to do an elevator pitch just so that they practice and learn how to pitch their ideas to potential investors.

Many participants agree that they attended the programme to order to be prudent in their savings. PC 5 (who only spoke Pidgin English) expressed the following, “I come the programme because I want learn how to save money and make my business grow pass as e dey”. (I attended the programme because I want to learn how to save my money and expand my business).

She went on to say,

I come this programme don help me well well. I learn how I go fit to take save my money so that my business no go fall, plus them even give us small money to take support our business”. (“Coming to this programme has helped me really well. I’ve learnt various ways to save money to sustain my business; they also gave us some money to support our businesses”.) Many participants were happy with the outcome of the programme, agreeing that they got more out of the programme than they had anticipated.

PB 13 said,

Since coming for this programme, I have learnt a lot about things about robotics. I am now confidence in assembling things and figuring out how to make things work. Besides robotics, the session on vocational skills inspired me to not only focus on technology but also on the importance of gaining additional skills to start my business.

PA 9 said, “The learning content is very useful. When I saw the course, I thought it was too much for one month, but the mode/pattern of teaching is good”.

PA 7 said the following,

It is nice. It is eye-opening. It helps people. It improves your thinking so that you will understand that more opportunities are available because sometimes you do not know that there are other opportunities, but coming to these types of platforms opens your eyes to opportunities and makes you think differently.

PB 11, said that

this programme has been useful to me because now I have a basic understanding of how to successfully promote my business online. All I have to do now is study further to understand how to set up my online business.

PA 15 expressed the following, “before the programme, I was an amateur with technology, but the programme has given me a foundation for using technologies in my business”.

Responding to the matter of gender awareness and the implications for the public, there were opposing views and perceptions about the programme.

Some of the participants agreed that due to the cultural values of the Nigerian society, acceptance of gender equality might be slow and minimal in rural communities.

PA 8 said the following,

If you take these messages about gender equity to the rural area, it may be difficult for them to assimilate because of our culture. We in the urban area are already informed and were easy to assimilate, but it will be difficult to convince rural people. It will be a gradual process to get rural people to accept the concept.

PA 15 said the following,

It will take a lot of work to sensitise the public because of our cultural perception. Women are not technologically inclined, and they are not ready to take action. As such, you will have to battle with the culture. It is not enough to have the idea; if you look at schools, you have more males attending schools and even more males in science-related disciplines.

However, some of the participants agree that the session on gender equality gave them a better understanding of gender equality and equity. They also agree that it has broadened their mind-set about the issue of women and technology.

PA 6 made the following remarks,

The content we have been given is good. When it comes to gender, it is an issue that is being raised in the society by some certain women like the feminist. They are looking for equality in some certain areas, which is not ideal because if you are in the same level as the men in a particular situation, it will not be in favour of women. The session has helped us to understand that you do not ask for gender equality in all situations because if they are to say 'okay to gender equality', I should lift a desk as well as a man can do it, but I might not have the strength to do that, so in that situation, I should not ask for gender equality. The programmes have made me realise that technologies are not for the men alone; it is both for the men and for the women. Even going through history in technology to the days of NASA, it was women who created the code that helped to fly the first rocket.

PA 10 stated the following,

From what I have seen in this programme, I believe that technology belongs to all. It is not for men alone or women alone. I have seen some colleagues here, ladies who are doing well, even far better than most guys here, and every lady or woman should be encouraged to embrace technology.

PA 14 said this,

When I saw the ad, I thought it was only for women until I came and I realised everyone could apply. People are scared that tech is too big for people to digest in their brain, so they feel let the guys do it because people see that guys do it more.

PA 8 said the following,

I have always had the mindset that most technological things are for men and that they are difficult, and truly, in computer science, 80% are men. We have few females, even in engineering. I used to think they are quite hard for women, but

coming to this programme has changed my perception. I now see that computers are easy and anybody can understand them, so there is nothing in it.

Whereas many participants focussed on aspects of the programmes from the perspective of gender, others were more concerned with their learning outcomes. Several participants from NGO B felt that the training programme was not hands-on; it was more theoretical, which made the sessions unuseful for them.

PB 17 said,

I did not find the training programme on the legal aspect of business useful. I had anticipated that they would provide practical lessons rather than theories of how to go about registering a business. This is because when I go onto the website, the process is complicated and there is no easy way to find out if someone else has already registered the business name I have chosen.

PB 16 said,

Due to the limited use of technology for the programme, the session on using social media to promote my business was not useful. The session was purely based on theories and how other people used social media for their businesses, but they did not teach us how we can apply it to our businesses, nor was there any demonstration.

PB 12, who was forced to be in the programme, said,

This is a waste of time for me. The time I spent coming to this programme would have been used productively if I was allowed to follow my passion, but either way, there is nothing I can do about it.

The three main focuses of the NGOs are to provide digital literacy to their participants, with the exception of NGO C. The reason for the focus on digital literacy because of the digital revolution and the shift towards digitization. To ensure that the participants remain equipped and relevant in the digitised age and to compete favourably, NGO A and NGO B both agree that digital literacy will provide the participants with the skills needed to survive in this age.

Also, gender awareness was another aspect of knowledge empowerment that the NGOs focused on. They agree that to dismantle the gender stereotype, it is important to educate the participants and to tackle gender-related issues.

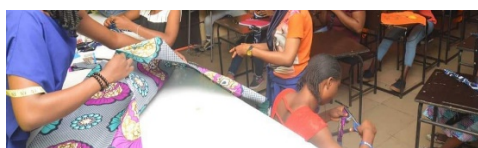
Finally, the NGOs ensured that they provided the participants with financial literacy. This is because they agreed that successfully operating a business requires a judicious and meticulous use of money. Thus, they ensured that the participants were given the basic training on how to plan a budget to maximise savings.

This section has shown, from the perspective of the Program Directors, the significance of the focus on digital skills, gender awareness, and financial literacy. It presents their justifications, including the importance of giving participants access to skills that will enable them to survive in the digital age. It also shows their reasons for using aspects of knowledge empowerment to attempt to dismantle gender stereotyping and provide women with information that would educate participants on gender-related issues. Financial literacy was seen by NGOs to be crucial to women's empowerment. However, some participants were disappointed that they did not beyond a basic level of training in business planning.

5.6.2 Economic Empowerment:

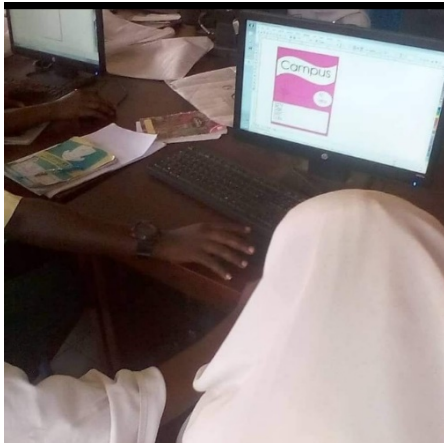
While NGOs A and B are interested in STEM education, NGO B acknowledged that not every woman would be interested in technical education. Hence, they ensured to include vocational training for one of their programmes with young girls to give them a route to economic empowerment. One such approach was to train the participants on how to make bags using African print because of the rise in the popularity of African fashion in Nigeria. These young women were also taught how to recycle prints and materials to make homemade furniture, as well as how to produce digital art prints as depicted in Images 6 and 7 below.

Image 6: Training Session on African bag



Source: Facebook

Image 7: Training Session on digital printing



Source: Facebook

The NGOs trained the participants to start their businesses and become employers of labour. This is particularly important in Nigeria due to the high rate of unemployment and the increased desire of women to be financially independent, as programme directors from different NGOs emphasised.

PDA 1 said that “we aim to empower our participants to become successful entrepreneurs, and start a business, indigenous businesses”.

PDC 5 said the following,

We live in a society where the government is not concerned about its people. As a result, we hope to train participants who will become employers of labour and contribute to reducing the unemployment rate in Nigeria.

As another of the programme directors (PDA 2) put it,

How can you expect someone to stay home and do nothing for years, depending on family members for support? Society encourages us to go to school because we have a better chance to get a job, but when we graduate, we spend years applying for jobs and getting nothing”. She believes it is time for women to take their destiny in their hands and chart their course. She said, “I think it is time women start to take the reins and to set up businesses.

In addition, PDB 3 said,

We live in a society where people are no longer interested in working for people but want to own their own businesses due to the flexibility it affords them. And we want to ensure that our participants are given the necessary training they will need to not only start their businesses but also to sustain their businesses.

To run a business successfully, at least some basic entrepreneurial skills are needed. NGOs ensure that they employ people who are skilled in entrepreneurship training to come and speak to the participants about the basic skills needed to start a successful business and how to monitor and evaluate the growth and success of a business. According to PDB 3,

a business owner needs to evaluate and monitor the growth of their business. She said this is a critical factor because “it allows the business owner to know where they are, what is working, and what is not working and taking the necessary measures to address the issues. As a result, we ensure that we provide this training to our participants.

In addition, PDB 4 said that

as a business owner, you need to be aware of the direction your company is taking and develop new strategies to incorporate into the business to make it grow. When these strategies are implemented, it is essential that the business owner keeps track of the success and failures of these strategies and seeks ways to improve them.

PDA 1 said,

As an organisation that seeks to empower women to be successful entrepreneurs, we also want to ensure that they are equipped with all the information they will need to succeed. Monitoring and evaluating a business are very important to the success of a business enterprise, and that is the reason why we collaborated with one of the experts in the industry to deliver the training session to our participants.

PDC 5 in answering the questions on the aim of the programme, said,

While we are interested in ensuring the financial health of our participants, we also educate them on how to monitor their success. While we taught them various

strategies to help them with their saving habits, we also encouraged them to monitor this monthly and that if the strategy they adopt is not working, then they can try other strategies. One of those strategies is opening a savings account without getting a bank card just to help them limit their spending. We also encouraged them to ensure that they deposit at least a minimum of #500 NGN [the equivalent of AUD 2.50].

Finally, while all NGOs acknowledged the need to improve the economic standards now or in the future by developing skills for the workforce, the main goal for these NGOs is improving the standard of life for their participants. This goal was clear not only from the statements online but also from the programme directors, who constantly emphasised this. PDC 5 stated that “these women are the breadwinners of their families, and we hope to educate them and provide avenues that will help them improve their living conditions”. PDC 6 added that,

women often do not dream big. They limit themselves and their abilities and often are satisfied with where they are at the moment. We aim to ensure that women think outside the box and see the limitless possibilities available to them and that they have the ability to improve their living conditions.

PDA 1 said that,

after all is said and done, all we really want to do is to help our participants get a better life than they already do, so we try to challenge them out of their comfort zone and make them see that they can be successful business owners”.

PDB 4, said that “we aim to improve the lives of our participants by providing them with the resources they will need to lead and change their lives”.

The majority of the participants aspired to be entrepreneurs. Some already were entrepreneurs who want to be more successful, whereas others were hopeful about being able to establish a business once they had completed the course. PA 4 said, “What I intend to do is start up my own business where I develop websites for people”. Some participants in the programme offered by NGO A already had steady on-going employment but preferred the challenge of establishing their own business. PA 6, a male

participant, is a graduate who is gainfully employed in a government institution. However, he is not satisfied with only working for the government and is planning to start a waste management system. He explained that he intends to develop an app similar to Uber to help residents of Lagos locate a waste and recycling company around them to make it easier for them to dispose of their waste. He said,

I want to start my own business, and I want to know how to incorporate digital technology into my business. [This programme] has given me knowledge on how to add tech solutions to my business.

Another participant in the same program, PA 3, looking towards a future career, said,

I want to be a secondary school teacher. I will introduce them to languages because in Nigerian secondary schools, they teach data processing up to the WAEC level, so I am going to try to advocate at least learning computer languages like bootstrap, so I will read more and teach.

Other participants were also concerned with improving their economic situation. Another participant (PB 11), who owns a pastry business and is an undergraduate in their final year of study, said,

I have been doing this business to help me through university, but now that I am about to finish university, I need to also think about my life after my studies. I live in Lagos, and the job market here is not only competitive, but it is about who you know. I have been doing this business for a while, but I only sell to people around me. Now I want to take this to the next level and have clients from other places in Lagos, so I want to learn how to market my products online and use technology to promote my business.

PA 4 said, "I came to the programme to develop an interest and to learn how to code and make money with it".

In regards to the outcomes of the programmes, the programme director's responses differ from participants' responses regarding how effective the programmes are. Responses from the programme directors and the programme participants are given below. While there are no specific indices for measuring the success of the programmes,

some of the NGOs monitor the success of their participants, especially for programmes that award financial compensation to the best participants.

One of the key criteria used by the NGOs is growth in entrepreneurship. As PDA 1 said, Over the years, we have seen the success of the programmes through the participants starting and running their businesses, and because of how eager they are, they volunteer to come to subsequent training sessions to speak and share their knowledge with the new participants of the training.

In a similar vein, PDB 4 said,

We keep track of our participants, and very often we have some of them come back to us as interns, which shows that they have gone and developed their knowledge. We also have a programme for alumna where we hold networking events and provide them with information on job opportunities. We know it is successful because we have more participants who were recommended to attend the training by previous beneficiaries.

Some other participants start their businesses and become successful entrepreneurs. This NGO monitors the success of the programme monthly.

The perspective of participants can be seen from the following stories of three participants in previous programmes.

'Gloria' is now employed by one of the NGOs. She said that before participating in the programme, she would stay up late at night learning how to code and would take part in online communities to learn. Eventually, she attended the programme. A few months after completing the programme, she applied for a job with the NGO and was employed. She is now the chief operating officer of the organisation. She does not have a background in technology, but after attending the programme, she decided to continue learning online, and now she is an expert in the field of technology. This provided her with an opportunity to travel to America as a visiting researcher at a university for a science project. She also travelled to other countries to provide training in other programmes organised by the NGO.

'Faith' is also a facilitator and works for one of the NGOs. After studying and gaining her master's degree overseas, she came back to Nigeria, but she was unable to get a job even after searching for a long time. She had studied computer engineering, and when she came back and could not get a job, she joined an online community where they learnt programming and web development. She eventually learnt about the programme and participated in one of the intensive programmes. A few months after completing the programme, there was an advert for a position within the NGO; she applied and got the job.

A third participant, who was called upon to run a session in one of the programmes included in this study successfully started her own business with which she produces Ankara bags. She was invited to teach the participants how to make these bags and how to market the products.

The three stories above are examples of the possible outcomes of attending the programmes. Furthermore, the organisations also reach out to alumni of the programmes who have had great success in their careers to come in and train and motivate new participants. From the success stories of the alumni, one can attest that the programmes are indeed beneficial. Most of the participants also have a good chance of being employed by either the NGOs or by other organisations recommended by the NGOs.

Another outcome was an increase in the number of females who registered for science-related subjects in secondary schools. PDA 1 was able to assert that because of their after-school programme for secondary school students, there was an increase in the number of students who registered for science-related subjects in their senior certificate examinations.

This section highlighted the importance of providing economic empowerment to the participants, especially as it relates to their economic freedom. This is particularly important given the economic climate in Nigeria. The majority of the participants agreed that they attended the programme to improve their standard of living. The findings reveal that previous participants of the programme went on to start businesses or were

employed within the NGO. However, the NGOs did not develop any indices to measure the success of their programmes.

5.6.3 Psychological Empowerment:

Another important aim of the programmes that the NGOs claimed to have is the encouragement of women to improve their self-esteem; one of the ways to achieve this is by developing the leadership skills of the participants. A session in each of the programmes was focused on leadership skills; in NGO A, this session was linked to the requirement to lead in the digital age. The participants were presented with real-life scenarios and were asked to respond to them. PDA 2 said,

In every sphere of life, leadership is important, and to be a successful entrepreneur, you need to have certain leadership skills to manage your employees and make them productive.

According to PDA 1, the notion of leadership in Nigeria is different from what is obtainable in other countries. In Nigeria, employees are very cautious about approaching their manager or seniors. There is no free flow of communication, but she said that,

with our training, we want to change that process, we want to develop leaders who listen and are open to suggestions, leaders who respect the opinions and suggestions of their employees.

She added that to run a business successfully, an individual needs to be able to lead and influence people to take action, especially if the individual has people working with them. She summarised her idea by saying, "We also aim to educate our participants to be good leaders and manage people well".

PDB 4 said that for the longest of times, women's leadership has been relegated to the background. She said that there is a notion that women cannot lead because they have mood swings due to their natural biological process, and, as a result, it affects their leadership.

But through our training, we want to let women know that it is ok to be a woman and have your mood swings and still lead effectively. Hence, we included a session on emotional intelligence and how important it is for leadership.

While NGOs A and B were more concerned about leadership in the business world, NGO C was more concerned about leadership within the community. PDC 5 said that while their training session focused on financial literacy, they also ensured that the women understood the importance of standing up for themselves and engaging in politics within their community. “We encourage women to take on leadership positions and to support one another”.

Not everyone attending the NGOs’ programmes was interested in developing leadership skills. The girls and young women engaged in the programmes of NGO B are currently engaged in formal education and probably saw their involvement in the programme of NFE in much the same way that they regarded their involvement in formal education. This is because the programme was organised in a university and the students had to sit in a classroom that they were familiar with (Image 8).

Image 8: Participants in a training session by NGO B



Source: Fieldwork

Other participants attended the programme because of the free lunch and the chance to win the prize money. PB 13 said,

There is really no reason why I came for the programme. When they were advertising the programme, I felt since they will be providing free lunch and it will cost me nothing to register, I might as well just tag along.

Meanwhile, PB 12 said, “I decided to come to the programme to participate in the competition and see if I could win the prize”.

The three NGOs agree that it is important for their participants to believe in themselves and have high self-esteem. They also want the participants see themselves in leadership positions, both in the community and in other spheres of their lives. As such, they provide an avenue for participants to learn about leadership and how to be effective leaders. Despite this, some of the participants were not interested in the session. They were more concerned about the freebies they received and the monetary prize that is awarded to the participants with the best business idea.

The next section focusses on the use of technology.

5.7 THE USE OF TECHNOLOGY

This section considers the use of technology for the training and challenges encountered by the NGOs and participants. It highlights the social media avenue that the NGO utilised to disseminate their training. The NGOs use digital technology for three major purposes: information, publicity, and education. Before discussing these purposes, I discuss access to Internet facility.

5.7.1 Access to Internet Facilities

There were significant differences in how digital technology was used in the programmes and how the NGOs supported their participants in gaining access to the Internet. NGO B provided Internet access to the participants during training sessions so that they could use them. However, NGO A did not provide Internet access; their participants had to purchase Internet access for themselves.

As might be expected, the organisations focused heavily on digital technology, both in their work and in their NFE programmes. The first part of this section will explain how the NGOs use digital technology in their work, and the second part will explain how digital technology was used to support learning in the programmes.

The three NGOs are active in the online space. They all rely on Facebook as their primary means to show their presence online. There are three essential purposes for NGOs' use of Facebook: to provide information about their work, to promote their programmes and recruit participants, and to provide access to learning resources. They use their social media platforms to educate their followers about different issues that affect women and shed light on issues of domestic violence and how to seek help. The social media feeds are also used to direct women to other resources found on third-party sites such as YouTube, blogs, and other discussion platforms such as Twitter chat and online webinars.

5.7.1.1 FACEBOOK

The Facebook page of each NGO serves several purposes and presents different kinds of information in one of three forms: textual information (e.g., photographs, links to other sites, and educational videos). In presenting these findings, the information is divided into three categories by purpose, which are information, publicity, and education. The information category can be seen as an example of NFE. It is the broadest category, as it encompasses information about the NGO itself, its programmes, sponsorships, and successes. It also contains posts about issues of concern to women; this provision of information may include information about the civic responsibilities of women during elections, issues on domestic violence, and information about where to seek help. Furthermore, information is given about women who have succeeded in their fields of study. Publicity relates to information promoting the courses of the NGO, including the courses included in this study. The final category is education, which includes information and resources relevant to the courses offered by the NGOs.

The strength of an organisation's links with its community can be measured in two ways on Facebook. The first is by the number of followers the NGO has – this indicates the number of people who have actively sought to receive updates from the organisation. The second is by the number and range of interactions that people have with the content, identified by the technology as 'like', 'comment' and 'share'. Table 4 shows the number of followers for each NGO, and Tables 12-14 show the analysis of the content posted on the Facebook site between May and October 2018 and the ways that people interact with it.

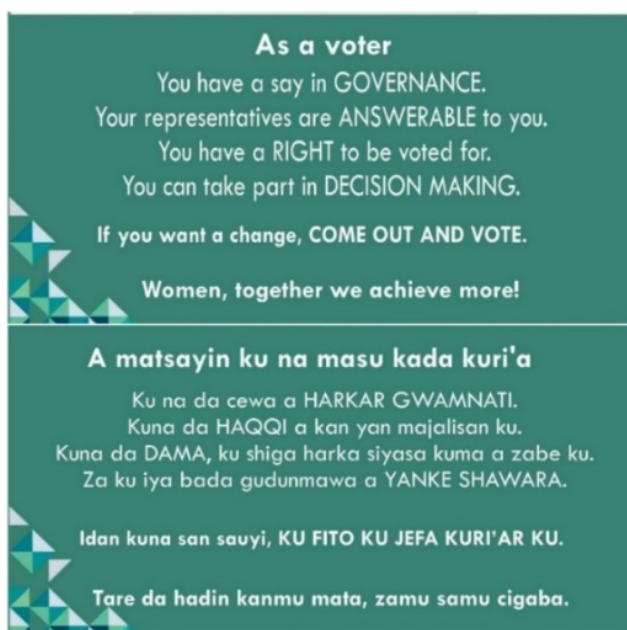
Table 4: NGOs and Numbers of Facebook Followers

NGOs	Followers
NGO A	9,404
NGO B	2,470
NGO C	1,646

5.7.2 Informational purpose:

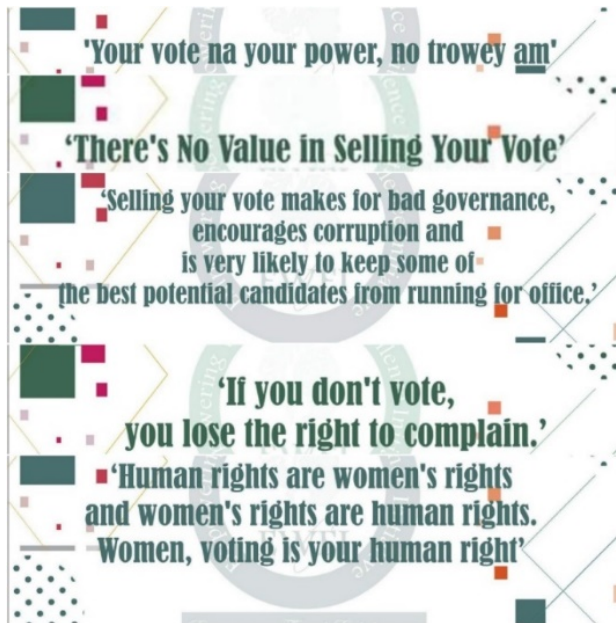
The information content for each of the NGO comprises important global events that concern women, such as International Women’s Day, the International Day of the Girl Child, and the International Day on Domestic Violence. NGO C often posts educational content, especially on issues affecting women, although the reactions to these posts are minimal. This NGO uses Facebook to educate people about different topical issues that affect women, such as women’s voting rights, power, domestic violence, and help centres. For example, during the election period NGO C provided information on the importance of voting, they also ensure that some of the posts are in the local language of the community (Hausa) and Pidgin English, as is shown in the images below.

Image 9: NGO C’s Content post In English and Hausa



Source: Facebook

Image 10: NGO C's Facebook Post in Pidgin and Standard English



Source: Facebook

Image 11: Facebook post by NGO C



Source: Facebook

Besides the content concerned with political representation, NGO C also provided information on health issues, such as the importance of breastfeeding for children's health, the importance of taking a stand against gender-based violence, and cancer awareness.

Image 12: NGO Cs Facebook post on breastfeeding babies



Source: Facebook

Image 13: Facebook post by NGO C fighting against gender-based violence



Source:

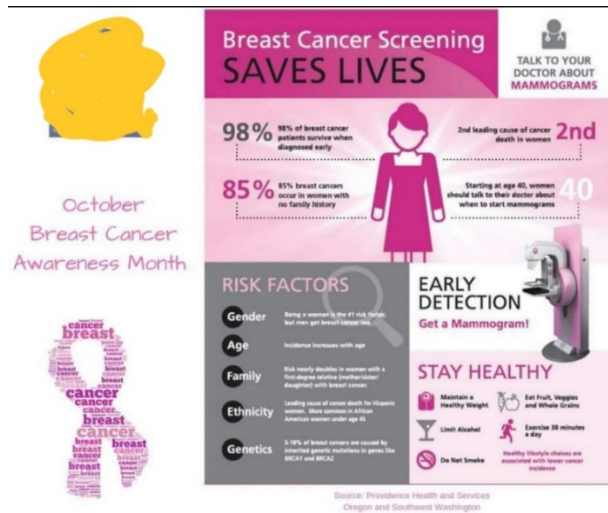
Facebook

Image 14: NGO C's Facebook post educating people on actions to take against gender-based violence



Source: Facebook

Image 15: NGO C's Facebook post educating people about breast cancer



Source: Facebook

While the staff of NGO C were more interested in raising public awareness on general issues, the staff of NGO A and B were more interested in promoting their programmes. Most of the content they posted on Facebook were images of the participants in training sessions or images promoting an upcoming programme. The image below shows participants who successfully created their first Ankara bag.

Image 16: Participants displaying their finished Ankara bags



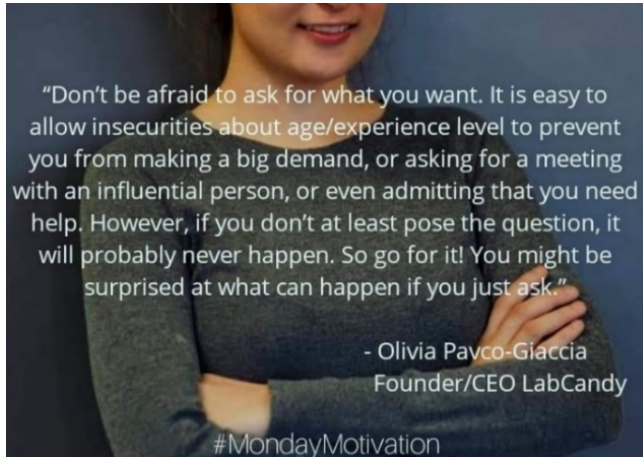
Source: Facebook

In addition, they use their Facebook sites as a 1monologic communication tool; they do not use it to interact with participants in their education programmes or with other users

¹ Monologic- relating to or in the form of a monologue. Merriam Webster Dictionary. (n.d.). Retrieved September 10, 2020, from <https://www.merriam-webster.com/dictionary/monologic>

of the Facebook page. For example, they post contents (or repost content from elsewhere) to motivate their followers, such as the image below.

Image 17: Facebook post by NGO A to encourage women to pursue excellence



Source: Facebook

The above image above is a post from NGO B and is intended to encourage their participants.

Image 18: Facebook post by NGO B to encourage and motivate women.

L-R.. First Bank Chairman (Ibukun Awosika),
GT Bank Chairman (Osaretin Demuren),
Access Bank Chairman (Mosun Belo-Olusoga
aka Aunty Mo)

THE REAL SLAY QUEENS 🍷🍷🍷



Source: Facebook

The image above is a Facebook post by NGO A about women who are excelling in their profession, again intended to give a motivational message.

The NGOs endeavoured that they used the Facebook page to provide general information to their followers. The information differs based on the times. Most often, when there is an international day celebrating an occasion, most of the posts will be

related to the event. For example, on the International Day of Ending Gender-based Violence, the NGOs post content that revolves around that theme and how to seek help. The same holds for cancer awareness and other issues affecting women. They also post content to celebrate women who have achieved great feats in a bid to encourage their followers to aspire to do great.

5.7.3 Publicity Purpose:

One of the ways the NGOs use digital technology for the campaign programme is to create awareness about any proposed programmes as indicated in the image above. As PDA 6 said,

[We] used it to have a 'national spread'. It is used to bring to the consciousness of the people the relevance and opportunities available from participating in the programmes. We use them to publicise the programme to people. It is the major way we get people to know what we are doing.

They also used their Facebook page to promote an event, giving details about the date, venue, and contact details. As part of the promotion, stories of successful candidates who were once beneficiaries of the training are posted online with information about their business. The stories are usually in the form of videos, and some of the videos are shot in the beneficiaries' places of business.

For the programme organised by NGO B, some of the participants who saw the ad on Facebook travelled from another African country to participate in the training. PA 1, when asked about how she found out about the programme, said,

I was going through Facebook when I saw an advert about this programme. I decided to travel all the way from Togo. One of the reasons was because of the content of the programme they shared on Facebook, and another reason was to compete for the prize.

I also observed that in addition to Facebook streaming, the NGOs used Facebook in advance to promote their programmes by posting fun activities from previous programmes and testimonials from previous participants. It serves as a side attraction to entice potential participants.

Image 19: Facebook post by NGO B promoting their programme



Source: Facebook

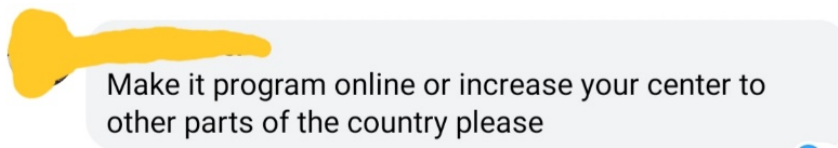
The number of likes, comments and shares can indicate something about the relationship between an NGO and its audience. NGO A had more reactions to their posts, although some of the comments were not related to the content posted by the NGO, as shown below. They do not reply to the questions posed by their followers, and when they do respond, it is only to answer questions by people who indicated interest in taking part in the programme (i.e. to advise them how to proceed and register for the programme). Even when a commenter notes that the NGO does not answer questions, no response is forthcoming from the NGO (Image 20). Similarly, the suggestion that programmes could be offered online elicits no response (Image 21).

Image 20: Screenshot of Facebook comment



Source: Facebook

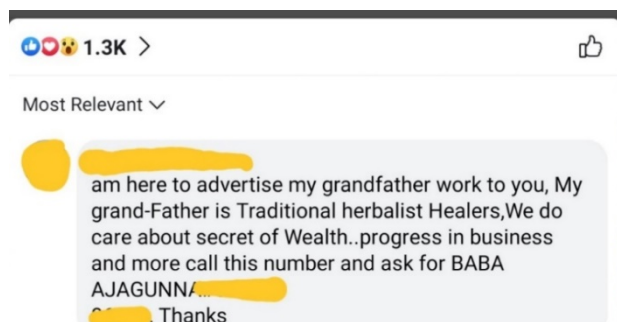
Image 21: Screenshot of Facebook Comment



Source: Facebook

In addition to not responding to questions asked by commenters on their Facebook page, they do not moderate the page and take down posts from outsiders promoting their businesses on the NGO's Facebook site (Image 22).

Image 22: Screenshot of Facebook Comment



Source: Facebook

Somewhat surprisingly, these posts from others promoting their business makes at least one NGO (NGO A) reluctant to respond to the comments. PDA 2 said,

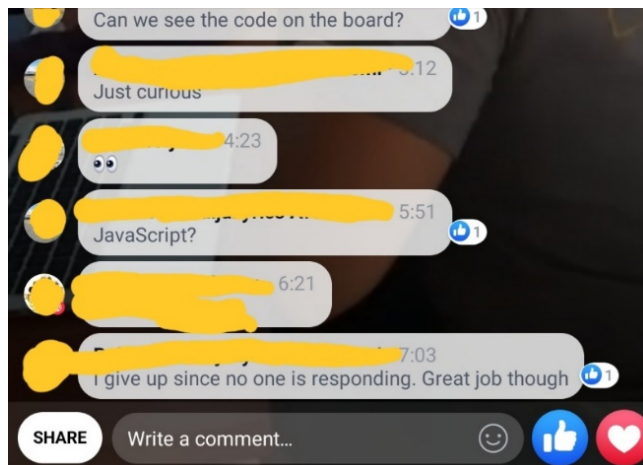
When we go online to see what our followers are saying on our page, we end up seeing ridiculous posts by someone who has no interest in our programmes. They serve as detractors, sometimes the first five comments could be these ridiculous comments, and we give up trying to read other comments.

PDC 5 felt that the participants of their programme are not "tech-savvy"; hence they would not be interested in using digital technology to learn online. However, the interviews with participants in this programme showed that several of them had a desire to learn how to use technology.

During the programme, NGO A uses the Facebook Live function to deliver training to some participants who could not be present. This enabled participants who could not make it to the training to watch online even after the training session was over.

However, it is difficult to see how this was successful from the participants' perspective because no one was assigned to respond to questions from online followers, even during live streams. At one point, after several attempts to ask questions, some of the followers signed out of the live stream (Image 23).

Image 23: Screenshot of a Facebook live stream



Source: Facebook

The findings above indicate that NGOs use their Facebook pages to promote their programmes. Also, because they were concerned about promoting their programmes, they did not commit to responding to messages or interacting with their followers except when the question was related to registering for the programmes.

Table 5: Facebook posts by NGO A from May 2018 to October 2018

	Content		Likes	Comments	Shares	Views
Information	Images	10	128	6	39	
	Links	8				
	Videos	4				437
Publicity	Images	23	8370	92	141	
	Links	3				
	Videos	1				
Education	Images		71	17	4	
	Links	1				
	Videos	16				1268

Table 6: Facebook posts by NGO B from May 2018 to October 2018

	Content		Likes	Comments	Shares	Views
Information	Images	42	662	23	18	
	Links					
	Videos	1				77
Publicity	Images	26	195	8	25	
	Links	1				
	Videos					
Education	Images	1	5			
	Links					
	Videos	6				

Table 7: Facebook posts by NGO C from May 2018 to October 2018

	Content		Likes	Comments	Shares	Views
Information	Images	17	106	8	27	
	Links	13				
	Videos	1				
Publicity	Images		396	18	83	
	Links					
	Videos	2				85
Education	Images	27	190	6	36	
	Links	11				
	Videos	2				7

The tables above show the number of posts that the NGOs have on their Facebook sites, as well as the number of reactions the posts have. Despite having the smallest number of followers, NGO C posted more educational content during the time of the study, as seen in the images above. On the other hand, NGO A had the largest number of viewers, although the majority of their content was intended mainly for publicity purposes. This shows that each organisation uses their social media differently.

When explaining how they promote their content, PDA 1 said that in some instances, they pay for Facebook advertisements to enhance the reach of their content, especially the content promoting their programme. She said this is why they have the highest number of views of their Facebook content. The promotion is to ensure that they increase participation in the programme.

Although the NGOs use their Facebook pages to share educational contents, for publicity purposes, and to share information, the type of content posted most often differs between NGOs. While NGO A and B use their Facebook pages mostly for publicity purposes and to promote their programmes, NGO C focuses more on providing information and posting educational content. This is also evidenced by image 9-15 from NGO C educating women on political, health and gender based violence, while image 16-19 by NGO A and B was motivational and promotional.

5.7.4 Educational purpose:

Each of the NGOs uses digital technology to support their programmes. Each has one or more categories of video content posted on their Facebook page, although only NGO A (in part through its international links) has a significant bank of resources available to those accessing its Facebook page. Many of the video recordings have been taken from the training sessions during the empowerment programmes. The table below shows the number of videos (and their categories) uploaded on Facebook by the NGOs. NGO A had 14 educational/training session videos uploaded. These videos were recordings of the training sessions organised by the NGO. NGO B had six educational videos uploaded, while NGO C had two videos promoting their programmes, one video of a participant sharing their story, and two educational videos.

Table 8: Number of Facebook video contents

	NGO A	NGO B	NGO C
Promotional videos			2
Testimonials			1
Educational/training session	14	6	2

5.7.4.1 SKYPE WEBINARS

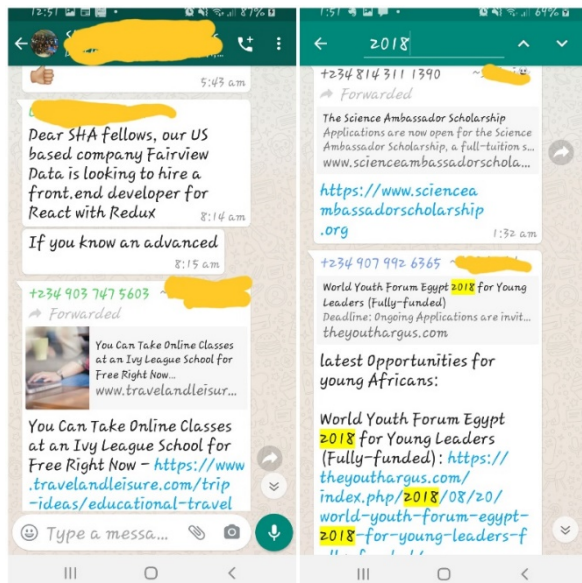
NGO C regularly organises online webinars on issues that affect women. These are specifically aimed at undergraduate and postgraduate female students. For these webinars, the NGO invites an industry professional to speak because the session is an interactive one in which the participants are invited to ask questions. Each session lasts for about 60-90 mins, depending on how many questions the participants have. The webinar links were posted on Facebook, and the women were reminded when the session was about to start. To participate in the webinars, the participants had to fill out a Google Forms survey and answer some questions about their educational background, professional background, and aspirations.

5.7.4.2 WHATSAPP

WhatsApp was heavily used among the participants from NGOs A and B. The WhatsApp group was set up by the NGOs, and they added new participants to the group as each programme took place. It was used for group members to communicate among themselves and collaborate on group assignments. NGOs A and B also used the WhatsApp messenger to instruct participants about proposed tasks, as well as to advertise job opportunities and programme content and training materials. The WhatsApp group remains active after the conclusion of the programme, and subsequent participants are added to the group, which increases the number of participation.

In NGO A, WhatsApp was the only means through which training manuals, slides, and PowerPoint presentations were disseminated (only upon request). PDA 4 said, "We only provide the content to participants who request the training content. They send the contents through PDF files to their WhatsApp group or in a flash drive". This shows a restricted approach to the dissemination of materials related to the training programmes. However, with NGO A, the use of WhatsApp goes beyond the dissemination of training material; the NGO also posted other information about professional development (Image 24) and employment opportunities (Image 25).

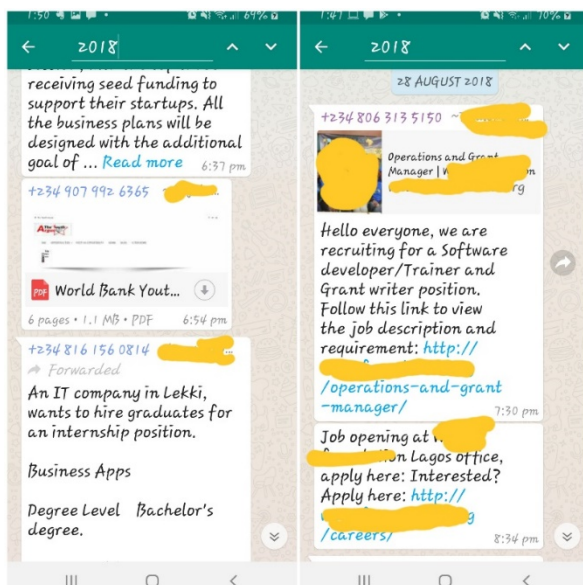
Image 24: NGO A WhatsApp post advising participants about opportunities for professional development



Source: WhatsApp

NGO A used WhatsApp to notify participants of further development and scholarship opportunities.

Image 25: NGO A WhatsApp post about employment opportunities



Source: WhatsApp

The image above illustrates NGO A's dissemination of employment opportunities to their participants.

NGO A and NGO B preferred to use WhatsApp to communicate with their participants because it was easier to control the conversation and to ensure that the information was shared only to the participants. Furthermore, it allowed for more effective collaboration and provided an easy means of providing feedback.

5.7.4.3 YouTube

NGO A and B also used YouTube videos to augment some of their teachings. NGO A also tried to live stream some of the programmes for the benefit of participants who could not make it in person. However, the poor connection and inadequacy of sophisticated equipment adversely affected the quality of video production. Another issue with this initiative was that all the training for the day was not always captured; therefore, there was no consistency in the online availability of training sessions. As PDA 1 explained, After the event, we turn it into a story using ‘Storify’ and put it on social media. We also do online streaming so that as the event is happening, the people can see it immediately.

Each of the NGOs also has a YouTube channel, where they upload videos of training sessions, past participants sharing their success stories, and other promotional content. Relatively few individuals are subscribers to these channels, as Table 9 demonstrates.

Table 9: Number of YouTube Subscribers and Video Uploads

NGOs	Number of Subscribers	Video Uploads
NGO A	38	63
NGO B	42	129
NGO C	23	31

The table above indicates the number of subscribers each organisation has and the total number of videos they have uploaded. Although none of the NGOs has a large number of subscribers, the number of videos uploaded varies. NGO B has the most subscribers and videos uploaded, while NGO C has the smallest number of subscribers and video

uploads. The reason for NGO C’s low number of uploads is that they are located in rural communities, where people are indigent, meaning there is no need to put effort into video content. Furthermore, their communications manager is a volunteer and only works part-time, suggesting that this activity is not a priority for the NGO.

The videos uploaded on the NGOs’ channels are usually videos of their performance, about what they are doing, and the activities carried out during training sessions. Typically, they include interviews with managers and success stories of previous participants. They are unlike other YouTube channels that are used for tutorials and self-directed learning; this may account for the low engagement and a small number of views.

NGO B was an exception, having posted a few videos that were instructional and could be used for tutorials. The other videos uploaded were typically interviews with managers or videos about the various activities they had organised.

Besides the YouTube videos uploaded by the NGOs, NGO A used some YouTube videos from other YouTube publishers in the training classrooms to illustrate points and to improve engagement and interaction among participants. However, these YouTube videos were not produced by NGOs.

Table 10 below indicates the number of video uploads based on the three categories focused in this study (i.e. promotion, testimonials, and educational contents).

Table 10: Number of YouTube videos

	NGO A	NGO B	NGO C
Promotional videos			2
Testimonials		14	1
Educational/training session	1	10	2

From the tables above, we can see that NGO B had more YouTube video content than NGOs A and C. While the testimonials highlight the success stories and impact the programmes has had on previous participants, the educational contents consist of

videos of the training sessions. However, on their Facebook page, they had uploaded only six videos of training sessions.

While NGO A had only one video post on YouTube, they had 14 educational videos on their Facebook page. NGO C remained consistent in the number of video posts they had on both YouTube and Facebook. The content across both social platforms was the same. The common thing about the video post across all the NGOs was that the contents were short. They ranged from 30 seconds to 34 minutes long. To reach a greater audience, the organisation has to consider the time during which they post contents to effectively reach their target audience.

The NGOs did not upload training materials for their programmes on their online repositories. Although NGO B, uploaded content from one of their programmes because it was one of the requirement from the sponsor of the programme. The sponsor required that the content be made available to everyone regardless of whether they registered for the programme. PDA 1 said that NGO A had never thought about creating an online repository where all their training materials and training contents could be stored to allow the general public access these educational resources. Meanwhile, PDB 3 said that a copyright issue prevented them from storing programme contents on their website. They do not want other people taking their training materials and passing them off as their own.

The NGOs used YouTube videos to augment their teaching. Some of the videos uploaded were recordings from their training sessions, while other videos (especially in the cases of NGOs A and B) were promotional videos of past participants sharing their experiences.

The below section provided the result from data collected from the participants of the programme.

5.8 PARTICIPANTS' EXPERIENCE OF ONLINE LEARNING

The majority of the participants, except for the women involved in NGO C, were already enrolled in one or more online courses and expressed their satisfaction with the course delivery on the online platform. While the participants said they had experience in using

digital technology for online learning, they generally preferred face-to-face learning over online learning when facilitated in the NGO programmes. PB 8 said,

For me, face-to-face is more effective because looking at people's expressions helps me understand what I am learning. Online learning is just like a text – you are just reading a text, and sometimes you cannot convey what you want to ask by typing a question. For someone like me, I will still have to omit some things. But once I am talking, I can express everything, and the expression of the teacher helps me understand better.

PA 12 had a different opinion,

I do online training, so I try to learn, and it is always easy. Mostly when I have challenges – like here, when they ask us to do something like an assignment, I will always Google it, I will definitely get an answer, and it will always work out. I do not think I really need to ask any questions, because all the answers are in the FAQ. The only thing when you submit your assignment, it will take up to three days for them to review it, and they do not send the review.

When asked what they thought about taking their class online, some participants felt they were not in a position to demand the training to be taken online because it was free. However, some of the participants from NGO A, who streamed some of the sessions online on days they could not attend the class, said they found it useful and convenient.

PA 8 said the following,

To be sincere, they should not. It is a free class. If I had paid, I may want to tell them that I paid for it, but I feel I don't feel any right to. I saw on the WhatsApp page that there was a live video, so I actually streamed the monitoring and evaluation class online, and I was happy that I did not miss anything, I saw everything happening in class. So, probably, they can always do something like that.

She was able to do this easily because the cost of online access and data was not a problem.

I don't complain about data because I use the Internet a lot. I subscribe unlimited. It is not expensive to me. When I tell people they are surprised, maybe it is because I use it for business and I am getting my money back. I can't go a day without being online. It is not even possible.

Discussions with the participants of NGO A indicated that almost all of those involved in the conversation were enrolled in an online class either massive open online courses (MOOCs) or using open education resources (OERs). They were also involved in online communities that catered to their interests and where they shared ideas and supported each other. The online community topics they said they were interested in included rising entrepreneurs, software programming, blogging, and vocational skills.

One of the participants said that one of the MOOCs makes the resources data-friendly such that the participants can download the videos without consuming data. Meanwhile, another OER collaborates with one of the leading mobile service providers in Nigeria. If you subscribe to the service provider, you can access any resources from the OERs at no cost.

Some participants believe that learning online may make learners nonchalant or complacent. As PA 13 said,

If the programmes were recorded and stored online, I might not be interested in coming to class. I can easily feel tired and decide not to come to the class because I can still get the class online. Therefore, I might decide to take a rest and continue later. Meanwhile, the classroom is also a learning process, aside from the fact that they are teaching us, trying to interact is an informal way of learning. Putting classes online is going to cut out the aspect of team building and leadership.

PB 14 believes that because they learn on their own time, it takes a long time for the student studying online to learn and practice what he or she are learning.

There are people I know who are training online who have not been able to practice to the extent they are doing now because they have had direct contact with the lecturer the person putting them through, so I think for development, there is still a need for face-to-face interaction.

Although the NGOs and their trainers had a narrowly defined view of what constituted online learning, participants took a much broader perspective. Thus, functions, such as posting on social networking sites, are not counted as part of the learning process by the NGOs, but it is clear that participants learn through these avenues.

5.9 CHALLENGES TO USING DIGITAL TECHNOLOGY

There were challenges for each of the NGOs in offering their NFE programmes. While the inconsistent power supply is a problem recognised across the country, other problems such as access to learning spaces were specific to a particular NGO's circumstances. Issues relating to the use of digital technologies and perceptions of the digital divide were significant and with far-reaching consequences.

5.9.1 Infrastructure

While NGO A and NGO C had their own spaces where they organised the programmes in their offices, the sites for the programmes for NGO B were a university and a public secondary school. This is because the target participants are students of these institutions, therefore making it logical to have the programmes close to the participants. In the university, sometimes, it was difficult to get a classroom that was free to use because of the demands of the university's teaching programme and the expectations of university students that they could stay in what seemed to be vacant rooms. As a result, we constantly had to use different classes for the programmes, which the participants were not happy about. I was really surprised to discover that these institutions requested that the NGOs pay for whatever services they used; it seemed that they assumed that NGOs are rich because of the funding they receive from external bodies. Even government-owned facilities asked NGOs to pay for the venue; I found this strange because I thought that as these NGOs are partners in implementing the government's NEEDS strategy, they should receive support and assistance from the government and government-funded institutions without having to pay. During the programmes, NGO B provided access to Internet facilities for the participants to enable them to download online resources. However, there were problems here, too, specifically with the power supply. As a result, NGO B's participants were not able to use digital technology effectively because they relied on the institution's power supply.

Furthermore, using the classrooms in the university was not at all conducive to learning because sometimes the university's students would be waiting in between classes and would be in the same room that was being used for the programmes. In most cases, they were talking to their friends, which disrupted the training sessions. On more than one occasion, the facilitator had to get security to ask them to leave, as they would not listen to her when she asked them to leave.

From my observations, I find that the degree to which the NGOs used digital technology differed based on the programme. For programmes that required coding and hands-on practice, the NGOs combined both online and face-to-face training. The participants were expected to provide their data for Internet access. Only NGO B made provision for Internet connection although this was problematic, as noted above. Another problem was the lack of a definite location for hosting the program. This was not only annoying and confusing to the participants. It also meant that the programme facilitator had to arrive at the university hours before the programme session was scheduled to take place to ensure a classroom was available for the training. Once that was arranged, she updated the participants via the WhatsApp group page. In addition, because the Internet connection arranged by the NGO had to be set up close to the venue of the training, the implementation of this arrangement was delayed until the university finally allocated a permanent room for the programme, which occurred towards its end.

PDB 3 had this to say about the problem of infrastructure,

We had to apply for the venue early, and they expected us to pay for it because the university thinks that, as NGOs, we have money because we get funding. Despite paying for the venue, we were not allocated a classroom, and we have to wait for students to finish their session before we [can] use a class.

The lack of availability of the classroom also deterred some of the participants. As PB 16 said,

Due to the poor planning and lack of a specific location, I could not concentrate on the training sessions. I was either distracted by the noise coming from the students, or I was too tired to listen to the training because of the stress of walking a long distance to get to a new venue.

Another major problem was the availability of electricity. The NGO that used the university encountered serious challenges because the power supply was unstable. As a result, when there was no power from the national grid, that NGO could not access digital technology for their training. The other NGOs (A and C), which used their own facilities, still encountered power challenges because of the unstable power supply. Sometimes the classes were interrupted when the national power grid went off, but the NGOs could switch on their power generator.

PDA 1 stated the following,

Electricity to power systems is a problem, and those who use their phones to browse, complain of the cost of buying a mobile bundle. Moreover, when they buy, they put it on only when they want to check for information online or when they want to post content online. We have not reached the level where we can say that any programme we put on social media reaches everyone.

Infrastructural challenges are a long-standing issue in Nigeria, especially regarding the issue of electricity. Though the NGOs had their space, they faced electricity problems, which disturbed the training sessions. Also, NGO B, who had to organise its sessions within a university, faced significant challenges in securing a specific location to hold the training sessions, which affected the motivation of participants to attend the training.

5.9.2 Digital Divide/Illiteracy:

Another issue was what is referred to as either the “digital divide” or “digital illiteracy”. NGO C perceived that this issue affected potential participants. Some potential participants of NGO C are rural dwellers who do not own a smartphone, who do not have access to the Internet, and who do not have basic skills in using digital technologies. As PDC 5 said,

The challenge we have is that most of the participants lack knowledge on the use of social media, whereas some do not have the luxury to be able to purchase smartphones and subscribe to data bundles. As such, they do not get to participate in the online programmes and benefit from training targeted to digital technology savvy people.

PDA 1 emphasised the importance of digital literacy when she said,

Our programme has a lot to do with the use of computers and programming languages, so if the participants do not have the basic understanding of how a computer works, then we cannot train them on that". This underlines one of the reasons given for targeting a specific socio-demographic group.

Although the NGOs indicated that the programmes were open to the public, the findings suggest the opposite. Only those with some level of digital literacy were allowed to participate. NGO C decided not to engage in some training because their participants were not digitally literate. Hence, this increases the digital divide and shows how the digital divide influences programme participation.

5.9.3 Lack of trained staff

I observed that another challenge faced by the NGOs is getting trained staff. They need people who have the expertise to provide programme content; sometimes, the NGOs invites speakers from their funders' organisations to handle a session. This is because before the start of the programme, the NGOs send a draft of the programme curriculum and, when endorsed by a funding organisation, they make a decision on the best person to run a session. They also need staff who are available and willing to create digital content for the online platform. PDA 2 explained the importance of this: "Because we have few paid staff, we are busy overseeing the success of a programme and trying to organise future programmes, and so we do not have time to create content for social media. Sometimes, we rely on our volunteers to do this for us".

Another critical challenge brought to my attention was the problem of getting people to engage in a discussion of serious topics in the online environment. PDB 3 thought that the problem could be solved by having more people reading about these serious topics. She said,

While gender-related issues and women's empowerment issues are trending on social media, people are not interested in engaging in a meaningful discussion. Driving traffic to our page is an issue.

The general strategy employed by all of the NGOs to help drive traffic to the website and social media page, and thus to encourage conversation, was to post images and links about any broadcast or print media coverage that they were featured or mentioned in. This strategy did not seem particularly successful.

5.10 CHAPTER SUMMARY

This chapter provides the findings from my fieldwork. While the NGOs' focus is to provide empowerment programmes to the participants, they also ensured that the programmes contained other useful information to help women set up their business.

The first session provided background information about the NGOs, the programmes' objectives, the programmes' target audience, and the structure the NGO followed for the programme.

In regards to the target audience of the programmes, one of the criteria for participating in the programmes of NGO A and NGO B is a basic knowledge of technology, which in itself is discriminatory. From NGO A, the finding shows that when provided with the opportunity, men still dominate. One of the programmes investigated in this study was initially targeted towards women and now has more male participants than female participants. For NGO B, we find that the influence of sponsors outweighs the interests and needs of the marginalised female participants. For NGO C, though they include the women in the implementation of the programme, they held the notion that due to the educational background of the participants, they are not interested in learning technology. Here, despite their intention to be inclusive, NGO C still prided themselves of being an expert and deciding the fate of the participants.

While the following section provided the findings in regards to the aim of the programmes. Three themes emerged from the findings on the aim and effectiveness of the programmes. These include economic empowerment, psychological empowerment, and knowledge empowerment. Similarities between the aim of the NGOs organising the programmes and the reasons for the participants attending the programme can be detected. Among the aims of the participants is their desire to improve their standard of living by setting up businesses.

Another interesting finding is the issue of the digital divide, which was prominent across the three NGOs studied. This divide was manifested in the choice of participants who were allowed to enrol in the programmes organised by NGOs A and B, while NGO C decided to limit their use of technology because of the lack of education of their participants. In addition to the choice of participants, NGO A enrolled male and female participants, with the number of males exceeding the number of women.

The next section examined the use of digital technology for the programmes. While the NGO A and B attempted to use digital technology for their programme, some constraints, such as a lack of Internet access and power supply issues, came into play. However, they were able to manage such problems effectively. NGO A and B actively used WhatsApp to communicate with their participants and provide useful resources. The participants, on the other hand, were already actively using digital technology for online learning and were not concerned about the cost of connecting to the Internet because of the benefits they receive from online learning.

CHAPTER 6

DISCUSSION OF THE FINDINGS

This study aims to explore how NGOs use NFE programmes to empower women using digital technology. The study set out to examine the educational programmes organised by three NGOs aimed at promoting women's empowerment, their use of digital technology for these programmes, and the challenges the NGOs and their participants face when using digital technologies. The study is based on Kabeer's empowerment framework. This framework, which identifies a range of factors involved in empowerment, will be used to discuss the findings of this study as it allows the interplay between the factors to emerge, demonstrating the impact on empowerment. Four aspects of Kabeer's empowerment framework are essential to this study and will shape the first part of the discussion. These aspects are agency, resources, institutional structure, and outcomes of development.

6.1 THE EMPOWERMENT FRAMEWORK

6.1.1 Agency

One of the elements of the framework is the empowerment of women to exercise their agency (choice), which is in line with the goals of the NGOs observed in this study. According to Kabeer, agency is the ability of people to assess choices, consider possible outcomes, and make decisions that will influence their lives. She presents agency as a characteristic of an individual. This study found that individual and collective empowerment existed side by side in the same programme, although the two forms are usually identified as separate, thus leading to different goals. As indicated in the literature review (Rowland, 1997), we see that individual empowerment is the ability of the individual to make personal choices. It is concerned with equipping individuals to believe in themselves and in their ability to effect change. The NGOs, through their programmes and the structure of training, aim to equip participants with the resources they will need to make their own decisions. Participants were challenged via the programmes to develop their sense of awareness, challenge their existing beliefs, and make decisions about how to apply their learning. Educational programmes usually

focus on individual empowerment, and the programmes offered by the NGOs in this study were no exception.

Most participants made an active choice to engage in the learning programmes of the NGOs, an essential factor if an individual is to make significant decisions in the process of empowerment (Alsop and Heinsohn, 2005; Campbell and Mannell, 2016; Knight, 2018). From the findings, we can see that the participants decided to attend the training because of the possible outcome of the programme. For some of the participants, the outcome is the ability to use technology to promote their business. For others, it is the ability to effectively manage the finances of their business to ensure the sustainable growth of their business. For others still, it is the ability to start their business and gain financial freedom. All of the above reasons provided by the participants are related to improving their standard of their living.

Attending the programme is a choice the participants took to make their lives better. According to the empowerment framework, individuals who have psychological agency (such as self-esteem and self-efficacy) are more likely to reach a high degree of empowerment. This is because they possess a combination of psychological elements (Flammer, 2015) and capability assets (knowledge and information) (Panda and Rath, 2018), which enables the individual to navigate through institutional structures to make judicious decisions. This notion is evidenced by the story of Gloria, who is a prime example of someone who leveraged her agency to reach a high degree of empowerment. She decided to attend the training programme organised by the NGO. Besides that, when the NGO advertised an opening for a position within the organisation, she did not feel intimidated by the fact that she did not have a degree in technology. Instead, she leveraged her training within the organisation. In addition, as has been discussed above, she now has many opportunities to empower other women and participants. However, the findings of this study also show that enrolment in an educational programme is not necessarily an indicator of openness to the potential empowerment of education. Although staff from the NGOs emphasised that enrolling in their programmes was voluntary, the interviews demonstrated that some parents coerced their children to attend the programme while other participants only showed up because a free lunch was provided.

The NGOs also fostered collective empowerment in two ways: by placing participants in groups that worked towards a shared objective, or (in one instance) by having participants work within a group to identify their needs and then to meet those needs through an NFE programme. Participants placed in groups developed a sense of self and a sense of responsibility towards their group and its objectives. In the context of this study, this is because any decision they make could have influenced the final project design. As a result, the participants were conscious of every decision that they made, ensuring that any decision they made ensured the successful completion of their project.

Huis et al. (2017) agree that engaging in a small group of people with a common purpose is a step in the right direction for women's empowerment. This approach echoes Stromquist's (2015) position that collective agency is vital for women's empowerment. The combination of both male and female participants in a single group (as found in one of the organisations) also helps to challenge the cultural and structural issues affecting gender in the learning process. The present study reveals that women and men alike had something to contribute, and the women were not intimidated by the presence of the men. This is in line with the position of Odueran and Oyitso (2004), who argue that NFE can help women form active groups so that they can gain more and more control over their lives, help themselves break the silence, and make themselves visible.

Collective empowerment can also be observed when a group of people who share similar behaviours come together and share their cultural values to promote collective growth (Budgeon, 2015; Kurtiş, Adams, and Estrada-Villalta, 2016; Kabeer, 2005). We can see from the example of NGO C, who conducted the NEEDs analysis, that they adopted a collective empowerment approach. They ensured that they consulted with their potential participants to gain their input regarding the programme content. Furthermore, the interviews with participants showed a robust shared understanding of their expectations. This supports the notion that collective empowerment is the ability of a community to achieve a collective goal through the participation of individuals within the community; it also underlines that women can contribute to the development of knowledge.

Clark and Mayer, (2016) and Bender and Hill, (2016) agree that creating an online community where learners can work together without being disrespected will help bridge the divide and establish a culture of digital natives suitable for efficient eLearning. Scholars like Kabeer (1994) and McLean and Modi (2016), advocate for the collective empowerment because they note that individual efforts can be fragile. Concerning digital technologies, Martinez and Reily (2002) and Wahid et al. (2017) agree that collective, not individual, empowerment determines the potential for digital technologies to empower women to become active participants in their quest to satisfy their information needs.

This is supported by my observation from the WhatsApp group conversation of the participants from NGO A and NGO B. Thus, there is evidence that collective empowerment influences women and ensures that women are not merely consumers of digital technologies; instead, are actively participating in the socio-political sphere, as proposed by Martinez and Reily (2002) and Wahid et al. (2017).

This study found that collective empowerment and individual empowerment form a complex relationship. Although the relationship between individual and collective empowerment was not a focus of this study, it is clearly complex, as found by Abubakar and Dasuki (2018). The findings of Jiménez and Zheng (2017), which suggest that individual and collective agency encourage a sense of belonging to a community while promoting gender equality among the society, indicate that empowerment is about more than using a skills-based approach to facilitate the development of entrepreneurs in a society that needs innovative development approaches.

6.1.2 Resources:

A second element of the empowerment framework relevant to this study is resources (i.e. the tools that increase the capability of individuals to apply judgments and create opportunities for a more significant change in their lives (Kabeer, 2018). Alsop and Heinsohn (2005) used several concepts (e.g., informational, organisational, material, social, financial, human) as measures of resources. In contrast, Dhondt, Oeij, and Schröder (2018) emphasised the importance of ICTs, education, income, and socio-cultural elements in influencing the ability of a technology user. The provision of

resources is fundamental to the individual making use of their agency. In the context of this study, the NFE programmes and related strategies of the NGOs provide the tools through which participants could become empowered. They include the training programmes and educational contents of the NGOs, the informational content shared on the social media pages of the NGOs, and the financial resources the NGOs and mentoring provided for participants.

The analysis of the NGOs' NFE programmes indicates that they encompass at least four types of empowerment (i.e. economic, knowledge-based, political, and social) (Stromquist, 2015), while also incorporating technological education. The study revealed that NGOs' aim in organising NFEs and participants' reasons for attending the programmes are based on the belief that they will improve women's socio-economic empowerment. Hence, most of the programmes organised by the NGOs were designed to enhance the standard of living of the participants by including vocational training and providing basic financial literacy skills.

This is in line with the work of the Institute for Lifelong Learning (UIL) (2013, 2014), which notes that there is an enduring relationship between increased literacy and the increased income of individuals. Mackowicz and Wnek-Gozdek, (2016) note that important topics relevant to learners include effectively using communication tools, social media, health, and financial management, all of which are topics that the NGOs attempted to educate their participants about.

Just as education has continually been a significant determining factor of individual income (alongside professional experience), research shows that educational programmes have a positive influence on the financial status and self-development of women (Hannum and Buchmann, 2003). Stromquist (2009) refers to the empowerment of women via NFE as the mental, physical, and emotional development that enables the learner to influence and participate actively in their environment.

Based on the findings of the study, I argue that NFE impacts the lives of participants by providing economic empowerment through employment and entrepreneurship opportunities that enable women to become financially independent and to make economic decisions (at least potentially). This finding confirms existing studies by

Kandiyoti, (1988) and Dolan, (2001), who found that by engaging in economic activities, women from South Asia, the Middle East, and sub-Saharan African countries have the freedom to make economic decisions. Ellsberg et al. (2015) agree that the ability of women to earn income enables their economic empowerment, thus making women independent and capable of making their own decisions rather than depending on their husbands.

Some participants in previous programmes were employed within the NGOs, while others went on to start up their own businesses. This finding negates the position of Jayaweera (1997), who states that there is no clear relationship between education and women's empowerment. However, as noted above, some of the participants said that they derived no benefits from the programmes they attended, either because the content did not fit into their specific aspirations or because they had no interest in being there. Such instances lend some support to Jayaweera's findings.

All the NGOs ensured they provide the learning content to equip the participants with the skills they need to start and sustain a successful business. However, NGO B also provided vocational training to its participants. The findings demonstrate that NFE helps to eliminate poverty by providing equal access to education for women and improving their access to vocational training, science, technology, and continuing education, as proposed by UNESCO (2010). However, it can go beyond this. Participants of the programmes offered previously by the NGOs were asked to facilitate some of the training sessions – in other words, they transitioned from being learners to being skilled enough to teach. This is in line with Adamu's (1996) assumption that adult education programmes remain the most important tool with which a national development plan can help women to develop themselves.

NFE can be used to create awareness and awaken the consciousness of all adults in society, allowing them to think critically about the social, economic, and political conditions in their society (Lovett, Clarke, and Kilmurray, 2018). Each NGO provided its participants with a range of knowledge and skills. Paramount among these – both for the NGOs and the participants – was entrepreneurship education, which was aimed at equipping participants with the skills they need for their business ventures.

In the present study, some of the participants were motivated to start their businesses. Other participants stated that participating in the programme gave them ideas about how to promote and successfully operate their existing businesses. This corroborates the findings of Aroge (2016), who stated that many women who participate in a vocational or entrepreneurship education programme are often motivated to establish small- to medium-scale businesses. Sometimes, their businesses eventually develop into large-scale businesses that are beneficial to their families and society at large. My findings also support the work of Asadullah and Zafar (2018), who noted that participating in vocational skills acquisition programmes can help individuals improve their (and their communities') socio-economic conditions.

The need for entrepreneurship education to equip adults with the relevant knowledge and skills for establishing and managing a business is owing to the high rates of unemployment and poverty in Nigeria (Okoye, 2017). The findings demonstrate that these NGOs want to see women become economically empowered. In the Nigerian context, this could mean that they are no longer dependent on their husbands or the government for money or jobs. These NGOs assert that they want women to aspire to be job creators and part of the solution to the problems in Nigerian society.

NFE provides further training to individuals to help them find employment (or to become self-employed). They also provide professional development courses to people who are already employed (Mayombe, 2017; Hart, 2018). The findings of this study showed that many participants had previously studied online and did not have any problem incorporating online learning into their daily lives. They found ways to work around problems, as shown by the example of Gloria, who would sometimes stay up late at night to study online and join an online community. Gloria's experience can be considered extraordinary because she has had the opportunity to travel to provide training to participants in other countries and participate as a visiting research scholar for a science project in a university in America. Nonetheless, it provides evidence that the position of Dasuki, Abbott, and Azerikatoa (2014) is overstated – they argue that there is no link between ICTs and human empowerment.

There is a saying in Nigeria that “the river of knowledge has not depth”. This is because knowledge is power, and with power comes authority. Knowledge enables an individual to see things differently. There is no limit to what someone who has knowledge can achieve. Carney and Indrisano (2013) submit that knowledge is an expression of power because knowledge allows people to think beyond what is obtainable to them, giving them the ability to see issues and social phenomena from a broad perspective. One of the aims of NGOs is to encourage their participants to think outside the box and to allow them to see that there is a world of possibilities available to them. In other words, NGOs aim to promote knowledge-based empowerment.

Stromquist (2015) argues that NFE could be significant in redressing issues of women’s subjugation in society, especially when it encourages critical reflection. In this way, knowledge can be developed that helps society to identify the factors that influence women’s subjugation and how society can contest those factors. This process of critical reflection can be seen in the findings of this work, whereby participants agreed that engaging in the programme has changed their perspective and given them a different view on life. This supports Stacki and Monkman (2003), who quote Friedmann’s (1992) argument that to bring about social and cultural transformations, an empowerment project or programme is needed that goes beyond disseminating knowledge to individuals and integrates social action which challenges the social and cultural norms and changing institutions’ social relations.

In addition to knowledge empowerment through their NFE programmes, the NGOs investigated in this research provided a range of information through their websites and Facebook pages. This information provision is another form of NFE that facilitates basic understandings of issues affecting women, such as the importance of family planning as it relates to women’s health. Such information is geared towards empowering women to take control and make decisions about their bodies while helping them plan their families to avoid giving birth to children who they may not be able to care for. Etokidem et al. (2017) found that educated women are more likely than uneducated women to understand the need to have fewer children.

This study provides evidence that NGOs use their Facebook page to provide general knowledge information. They provided information such as voting rights and civic responsibility, personal hygiene, general information on various topics, such as the history of women, notable women who have changed their societies, and modern women who are breaking barriers. This is intended to encourage women that there is nothing that they cannot achieve and to ensure that they keep their audience engaged. However, although they publish posts that encourage participation, the NGOs seem not to interact with audience members who ask questions. It would appear that their concern was in ensuring that they have content on their social media to keep participants informed while not necessarily communicating with them or promoting their interest in these broad societal issues. As has been discussed in the literature, NGOs are a source of information, both as a service to their society and a source of social and financial capital.

NGOs also use their online platforms to provide participants with the information they need to exercise their agency. Some of the participants who attended programmes said they had found out about the programme via the NGO's website or social media page. NGOs also provided information about job opportunities, internships, and scholarships via the WhatsApp platform, a source of information that is exclusive to participants.

The provision of information is a fundamental activity of many NGOs, and many technologically savvy organisations adeptly utilise digital technology to provide their services and carry out their primary functions. As Armstrong and Butcher (2018) propose, NGOs use digital technology to alert, mobilise, and educate women about public issues while at the same time shaping and influencing civil actions and attitudes toward self-development. However, Lovejoy and Saxton (2012) observed that, despite the interactive function of social media, NGOs tend to use it differently to engage with their followers.

Although it seems that NGOs did not engage with people via their social media posts (as they merely provided information), the findings showed that the followers of these NGOs also took a relatively passive approach to the informational posts published on Facebook. They were more likely to 'like' a post than to 'share' it, and they did both of

these far more often than they commented. Indeed, some of the comments on the posts did not relate to the topic under discussion, with some of the followers tending to be more interested in advertising their own business or criticising the work of the NGOs. This pattern of behaviour towards resources intended for empowerment is not unusual and is considered a major problem plaguing the use of social media. Mutsvairo and Ragnedda (2017) suggest that followers of social media pages now find it difficult to comment or engage in conversations online because the buttons provide predetermined choices, reducing their engagement with a vital issue to clicktivism (i.e. users are asked merely to share the information or to 'like' a post instead of engaging in a discussion).

Although all the NGOs use Facebook (which is an open platform) to maintain engagement with their followers (but without interacting with them), NGO A and B also use WhatsApp as a way to control access to their learning material and to interact more with their participants. Through this medium, they distribute information and links to OERs as well as training materials in PDF format to the participants. OERs aims to provide free and accessible education to the public through the use of technologies, which reinforces the trend towards individual educational empowerment (Berti, 2018). This is also corroborated by the findings of Abubakar and Dasuki (2018), who showed that the use of WhatsApp empowers women to share educational information. Women were able to learn and seek clarity about the information that was unclear because of the cost-effective and easy method of sharing information on the groups. In other words, this approach to knowledge-based empowerment is collective.

Another important form of empowerment is political empowerment, which was also identified in the online sites of the NGOs. Participating in the politics of a nation is an aspect of women exercising their agency. The NGOs used civic education through their online sites to ensure women are aware of their rights as citizens of Nigeria, thereby encouraging them to take action and vote during elections. While this study did not investigate the results of NFE, Adeyemi and Falade (2015) found that civic education makes people politically aware and helps them actively engage in the voting process. Because women are under-represented in public offices in Nigeria, women must be educated about the political terrain in Nigeria, even through information campaigns

such as these. Civic education helps people to people understand the intricacies of the political terrain in the nation, especially the electoral process, the fundamental rights, and civic duties of every citizen (Adeyemi and Falade, 2015; Larreguy and Marshall, 2017; Adamu, 1996).

The online sites also encouraged women to get involved in any form of politics within their environment, speak up on any issues affecting them, and speak up for their rights. This is in line with the findings of Olulube and Egbezor, (2012) who expressed that civic education enables the beneficiaries to build institutions and empowers rural dwellers to carry out their civic duties concerning other members of society. According to Sundström et al. (2017), policies and practices that affect women are the rights to move freely, to control resources, to own properties, as well as the rights to freedom of speech and to exercise their civic duties.

Traditionally, in Nigeria, women have not been allowed to own landed properties in their father's family, and in some communities, a woman is not allowed to speak in family meetings. Since the decisions made in family and community can influence the lives of every individual, women need to participate in the decision-making process to influence the policies and practices to balance the gender relations. Women's political empowerment creates an opportunity for women to participate in societal decision-making (Sundström et al., 2017. According to Goltz, Buche, and Pathak (2015). If women are given proper representation in the political sphere, it is assumed that these women will remove the prevailing constraints on women's entrepreneurship, thereby providing opportunities for more women to enter the business sphere.

Through their programmes of NFE, the NGOs sought to dismantle the notion of gender stereotypes and to create an awareness that there are no gender-specific jobs or careers. Here, NGOs used three strategies through NFE (sessions on gender and its implications in the educational programmes, information on issues such as domestic violence as noted above, and bringing men and women together in the same educational programme). The findings indicate that this last strategy was not entirely successful in meeting its objective, with some of the female participants feeling intimidated by the men in the class and having their belief reinforced that the field of

technology was reserved for men. However, some of these women, who initially thought that they had no place in the world of technology, expressed their disbelief that they had been able to learn quickly.

Such low esteem and thoughts limit women from pursuing their dreams or getting involved in society. However, as Kabeer (2012) submits, it is important that women feel confident in themselves and to hold themselves in high esteem if they are to effect any change and participate in the public sphere. The empowerment framework suggests that individuals who have psychological agency, such as self-esteem and self-efficacy, are more likely to reach a high degree of empowerment than other individuals. The NGOs in this study stated that they aim to ensure that the participants gain courage and believe in themselves. They wanted women to see that they are valuable and hold themselves in high esteem. Therefore, in the programmes, the NGOs provided avenues for the participants to build and develop their self-confidence. Most participants agreed that attending the programme had helped build their self-confidence to go after what they want and improved their belief in themselves to achieve whatever they set their mind on.

In a longitudinal study, Murphy-Graham (2012), found that education helped empowered people to recognise their value. Similarly, Kagitcibasi, Goksen, and Gulgoz (2005) found that NFE contributed to the positive perception women have of themselves. The strategy of placing the participants in groups, adopted by NGO A, enabled them to work together (each group comprised men and women) and gave each of the participants an avenue to contribute to a group project. This allowed the participants to gain confidence in themselves and to acknowledge that their contribution – irrespective of how small it was – was valuable and significant to the success of the group project. This approach is supported by the findings of Blau, (2017) and Kabeer, (2012) who found that women's self-esteem develops when they are involved in a group. In addition, the development of confidence and self-esteem of the women influenced their lives as is evidenced in the lives of the previous participants who decided to pursue their passion and start their own businesses, or apply for positions in organisations they otherwise would not have applied for. Thus, the confidence that

learners acquire via NFE can be applied to their daily lives (Openjuru, 2016; Wlodkowski and Ginsberg, 2017).

The findings show that the NGOs take other steps beyond NFE to support the empowerment of participants, providing financial aid and mentoring to participants who excelled in the programme of education. Mentoring, which is not often considered part of NFE, extends the education process beyond the duration of the programme; it provides a source of targeted expertise for those exceptional participants, but in a way, more importantly, the mentor acts as a role model for participants, showing what is possible. This is a valuable resource in the broader context of the empowerment framework, as it also allows the participants to expand their human resources and network with other great minds within the industry, giving them access (at no cost) to a resource not otherwise readily available in Nigeria.

Another important resource provided the NGOs was financial aid, which was given to outstanding participants, which can be seen to help to counter the control that men have over resources and assets. This factor makes it difficult for women to obtain a loan to start a business. The NGOs believe that providing financial aid to the participants will give them control over their finances and contribute to reducing financial inequality. Ellsberg et al. (2015) argue that allowing women to access and control financial resources is significant for equality and the social welfare of women. This is because it is believed that empowerment is sustainable if it addresses the power differences and allows women the same opportunities as men to have control over the circumstances that influence their lives, such as resources and decision-making processes (Calves, 2009; Cornwall, 2016; van Eerdewijk et al., 2017).

However, it would be misleading to suggest that the NGOs do not face challenges in providing resources to participants. A key challenge is the lack of staff trained to create digital content. As reported by Briones et al. (2011), owing to the small number of paid staff and time constraints (which tends to reduce the effectiveness of an organisation), digital technology tools are not being utilised to their full potential.

These studies also agree that without stable staff available to manage digital technologies strategically, it would be challenging if not unattainable for an organisation

to achieve commitments from their participants, as consistency improves relationships through showing the organisation's dedication to online engagement. However, this study showed that it was difficult for NGOs to achieve a reasonable level of strategic use of technologies or even consistency in provision. They faced problems arising from the technological infrastructure (service quality) and structural barriers (such as inadequate facilities and electricity supply) that can influence the effective and efficient distribution of mobile device telecommunication services (Rouvinen, 2006, as cited in Sam, 2017). The empowerment framework emphasises the mutual relationship between human and non-human resources because access to and the use of ICTs can depend on institutional regulations and policies as well as socio-cultural values.

In addition to the range of resources identified above, one NGO provided laptops and computers to public schools because students learn about technology best via a hands-on approach. The position of the empowerment framework proponents is that the more access individuals have to resources and the greater their ability to use these resources, the higher their level of empowerment, which consequently results in an increase in their ability to use technology productively. While this position of the framework holds true, we can see that the lack of infrastructure for some of the training programmes disrupted the delivery of the training and, thus, had an impact on the potential for empowerment. For example, the ongoing problems with the power supply affected all the NGOs during training sessions as the sessions were usually interrupted when the power went off. In NGO A, the participants did not have to wait for a long time for the organisation's generator to power up so that training could continue. However, NGO B, which used rooms in a university, sometimes had to continue the programme without power, as the university did not turn on its subsidiary power. NGO B was also responsible for providing electricity for the duration of the programme, and thus, due to technological challenges, they do not provide online tutorials, which is somewhat problematic for a programme aiming to provide NFE in the field of information technology.

Access to Internet facilities, which is integral to the use of technology, is another challenge that was faced by the NGOs and participants. It might have been assumed that the NGOs would provide Internet facilities to the participants of these programmes.

However, that was not the case, as not all the participants had free access to the Internet. Although NGO B was able to provide Internet access to the participants in the latter part of the programme, the participants were expected to subscribe to an Internet data bundle via their mobile service provider. As a result, in most cases, the participants subscribed for monthly bundles and unlimited subscriptions. However, that did not mean that they were assured of Internet access: in some instances, even though some of the participants subscribed to a data bundle, they could go to a location where the network reception is poor, which could affect the use of the Internet for online learning. This is in line with the findings of Ghebregiorgis and Mihreteab (2018), and Agwu and Murray (2015), who found that although the cost of a data plan might be associated with mobile technologies, in some situations there may be poor reception, which hinders the successful use of these mobile technologies.

The cost of access to the Internet for participants was a potential hindrance. Some participants cited the cost of subscribing to Internet data as a barrier to their effective use of digital technologies for online learning, while other participants did not see it as an inconvenience because it is part of their daily lives or because they earn their living online. These participants were not concerned about the cost of connecting to the Internet because of the inherent benefits they believed they accrued from accessing the Internet and the knowledge they gained by participating in online learning communities. These findings are contrary to the findings of Osahon and Emmanuel (2017), Adediran et al. (2016), and Gillwald, Milek and Stork (2010), who concluded that the cost of connecting to the Internet is prohibitive. One participant, for whom access to the Internet was difficult, noted that this was not a concern for her because the courses she was registered for had contents that could be accessed offline; as a result, she could participate with the learning with little or no data.

6.1.3 Institutional structures

Institutional structures influence the ability of individuals to make decisions. The institutional structure includes formal and informal institutions in society, laws, policies, rules, and the expectations of society in everyday life. Here, too, the empowerment framework indicates that there is a mutual relationship between institutional structures and agency. While institutional structures influence the ability of an individual to make

choices (agency), the choice the individual makes affect how the institutions set the rules, regulations, or norms expected in the community. Consequently, the abilities of the individuals are enhanced due to the relationship between the agency and institutional structures (Baig, 2016).

The findings of this study reveal that NGOs may be more accountable to sponsors than to participants. One of the NGOs very much appeared to be more accountable to sponsors than the target audience of women. Osei (2017) found that NGOs did not meet the rhetoric of local participation in development programs, and the assumption of representing particular groups of people is unclear. Two factors influence the accountability of NGOs. The expansion of NGOs' relationships with international organisations diminishes their resolve to advocate for rural people, according to scholars such as Cusumano (2019), Redeker and Martens (2018), and Keating and Thrandardottir (2017). The NGOs depend on funding from both national and international sponsors. These NGOs reach out to sponsors to ensure the sustainability of their organisation by using the concept of empowerment. The funders' decisions to recruit participants who meet certain criteria might discriminate against women with certain characteristics and, therefore, not be universally empowering. Hence, factors that are more significant influence the participants (who sometimes do not get what they had expected to get from a training session) and marginalised women (who are not allowed to participate).

This finding corroborates the findings of Tortajada (2016) and Banks, Hulme, and Edwards (2015), who note that the inability of Nigerian women's NGOs to address the wants and needs of rural women strategically could be influenced by their dependence on external funding and sponsorships. NGOs' dependence on external funding and sponsorship might also affect how the NGOs operate, especially since they may have to deviate (to some extent) from their mission to cater to the demands of their funders. This study provides evidence the NGOs tailor their programmes to suit the expectations of the sponsors. However, it may be going too far to assert that NGOs' concern about their funders causes them to neglect the needs of the participants who are potential beneficiaries of the programmes. Nonetheless, by not allowing women to express their concerns related to their empowerment, two of the NGOs in this study might be missing significant empowerment opportunities.

Here, we see power dynamics at work. This affects the level of accountability an NGO has towards its participants. The finding of this study corroborates the literature in the sense that one of the sponsors of an NGO programme influenced the NGO's choice of participants. Specifically, only undergraduate and postgraduate students were eligible to register for the programme. This issue of sponsor influence is crucial because it influences NGOs' efforts to meet the needs of the women. This, in itself, is disempowering. While the relationship with international organisations is of immense benefit to NGOs – and, to some extent, the beneficiaries of the programmes – there is a possibility that it could increase the gap between NGOs and the people they work with (Beisheim, Ellersiek and Lorch, 2018).

This situation is not common to all the NGOs or all the programmes offered by the NGOs in this study. In another case, the sponsors had no influence over the choice of participants. All the NGO has to do is submit their proposal and explain how the participants will be empowered through the programme. Further, NGO C, before developing its programme, reached out to the women in the community to identify their needs and the issues that affect them the most. In this instance, the NGO encouraged the participation of the women in the community to ensure that the programme would be relevant to them. Speaking to the members of the community enabled the NGO to develop a programme that met the immediate needs of the participants. According to Nair (2015), the process of learning is optimal when the learner is at the centre of the design process and the learning content is personalised based on the individual's needs. When women are at the centre of the design process of a programme, it empowers them to participate in the programme.

However, the present study identified several instances where informal institutions – the practices of the NGOs, for example – affected the agency of the women who were seen as the target of these programmes. The mission of NGOs is to organise programmes to empower women. However, external factors affected how the participants of some programmes were selected. A key factor was the terms and conditions imposed by the sponsors and/or funders of particular programmes. It was also noted that NGO A bowed to community pressure and admitted men into their programme.

Two of the NGOs saw themselves as the gatekeepers and custodians of knowledge, with staff speaking as though they know what the participants need to improve their lives, and the staff of the NGO can benefit the participants by devising a programme of NFE without seeking input from potential participants. Taken together with the expectations of sponsors and funders, this approach marginalised some potential participants.

According to Schwerin (1995), individuals who can access information, have adequate communication skills, and are aware of their needs are more inclined to empower themselves by using digital technology. In this study, it was observed that people who are already educated had the opportunity to participate in the training programmes of NGOs A and B. Meanwhile, uneducated people (who stand to benefit more from the programme) were not allowed to enrol. Staff in NGO A believed it would take a long time for older, less educated women to become comfortable using digital technology in their daily lives and for learning. Although they said that the women were welcome to learn basic computer literacy skills along with the young female participants during their training sessions, this was a response to the researcher, not an invitation extended to these women – an insight gained through the ethnographic methodology of this study. Because of this assumption, all NGOs studied at present opted to recruit participants who were already digitally literate, thereby further discriminating against rural dwellers and women with lower levels of education. Hence, marginalised women were not even allowed to make their own choices. If NGOs intend to effect change in society, they need to dismantle the existing institutional structure and re-evaluate social structures to enable women to become active participants in the development structure (Rathgeber, 1990, 1995).

There is a relationship between the availability, use, and acquisition of agency and the other elements in the empowerment framework (Alsop and Heinsohn, 2005; Kleine, 2011; Kabeer, 2018). It constitutes a valuable position in the process of empowerment because not every decision that an individual makes is empowering (Kabeer, 2018). The implication of choice is the prospect of options, which is the ability to choose the alternative (Kabeer, 2018). Nevertheless, having to make alternate decisions without a specific purpose is not empowering because some decisions are more important than others regarding the implications they have on the lives of the individuals. This is

illustrated by the example of participants who attended the training not for what they could gain from it but for the free food. Though they decided to attend the programme and their attendance looks good on paper, the financial resources invested on these women would have been of greater benefit to the marginalised women who were not allowed to attend the programme.

On the other hand, the existence of choice does not mean that people are aware that they have the option to choose (Kleine, 2011; Bayissa, Smits, and Ruben, 2018). Therefore, in the context of this study, individual empowerment depends on the participants' ability to decide to make choices actively (participate in empowerment programmes) and to use those choices to obtain the result they desire (Alsop and Heinsohn, 2005).

6.1.4 Outcome of development

“Outcome of development” refers to the outcomes individuals realise from the empowerment process. Some organisations consider the empowerment of women as both a process and an outcome. This corroborates a finding of this study, as a number of participants agreed that participating in the NFE programme had motivated them to continue learning online to further their professional development.

In a development project setting where there are no pre-defined indicators, measuring the development outcomes of empowerment programmes becomes challenging (Kleine, 2011; Cornwall, 2016). However, in this study, NGO A measured the success of their participants quarterly. The NGO's evaluations are part of the terms and conditions of their funder; they are in place to ensure that the money awarded by the NGO is being used judiciously.

This raises the question of what is considered an outcome of a programme. Kabeer (2001) considers an individual's sense of empowerment to be an achievement in many project-based cases. Similarly, Alsop and Heinsohn (2005) and Schwerin (1995) agree that the development outcome of an individual is empowerment from an individual's attribute perspective. An example of this from the present study is the case of Michael, who started developing his own application for waste management during the

programme. Attending the programme was a revelation for Michael because he realised what he wanted to do for a career through the training process.

6.2 RECONSIDERING THE EMPOWERMENT FRAMEWORK

NGOs play a significant role in the empowerment of women. Not only do they provide the resources, but they also serve as the gatekeepers to who gets empowered. While the model serves as a good tool to analyse the work, here we see that the elements of the model are not all equal. There is friction between the agency and the institutional infrastructure. The institutional infrastructures dominate agency and do not match reality. This is because institutions impact women's ability to make choices, as they provide the resources that women need to exercise their agency.

While I agree that participation in the programmes by women is indeed a step towards their empowerment, the issue of hierarchy still influences the empowerment process. Such hierarchy comes in the forms such as sponsor influence, education level, and digital illiteracy. The power dynamics at play reduce the "impact" of empowerment because NGO programmes are not inclusive. The NGOs were more interested in providing resources to a select few rather than reforming structures.

6.3 TECHNOLOGY AND WOMEN'S EMPOWERMENT

6.3.1 Empowerment and its challenges

This study is concerned in part with the relationship between technology and the empowerment of women. From the findings, one could argue that the use of technology empowers women. From the literature review, it is apparent that education, including NFE, is paramount for the empowerment of women, as has been discussed in the previous section. Dussel (2018) and Bartolomé, Castañeda, and Adell, (2018) agree that digital technology can be applied to NFE in diverse ways, such as the provision of learning materials and support in the process of education, as well as organisations' operations of adult education and NFE. One way in which technology empowers women is via the dissemination of information. Some adult learners might be new to the use of technologies, might not understand how to use technologies for learning, and might struggle to combine their personal lives with online learning, which can be a barrier for their full participation in online learning (Safford and Stinton, 2016).

This view was held by some staff in the NGOs. The findings demonstrate that most of the participants of the programmes offered by NGOs A and B were tech-savvy before attending the programme. There were only a few participants who did not have an understanding of technology and how to code or use programming languages before enrolling in the programmes offered by NGO A. However, their reason for enrolling in the programme was to improve their skills in using the technology. Participants in these programmes were aware of the digital revolution, that technology is constantly changing, and that the world is gradually moving into an era where virtually everything will be done using technology. Because of this shift, some of the participants did not want to feel left out, nor did they want to be found lacking. Shopova (2014) also made the point that to participate fully in this era and meet the demands of global competitiveness, an individual needs to be digitally literate.

Participants who accepted that science-related fields are the domain of the men believed that the technological field is cumbersome and difficult to understand. This long-held notion (Cherualath, 2018; Usman, 2018) is based on the academic streaming process that dubs specific subjects such as sciences, mathematics, and technology as masculine, while art and the social sciences are labelled feminine. However, their participation in the programme led these women to realise that the field of technology is not as difficult as they had believed. As such, even before the end of the training, they already developed skills and expertise and could develop a website or use programming languages. This finding negates the findings of Safford and Stinton and shows that women can easily learn to use technology in an environment that is supportive and encouraging. This is in line with the findings of Singh (2018) and Clark and Mayer (2016), who expressed that instructors need to establish a collaborative learning environment that allows learners to work together and to create and share contents. They agree that doing so helps to increase the use of diverse technologies and improves their electronic learning (eLearning) experience.

Thus, although I stated above that technology can empower women, this would be an overstatement. As in many previous studies, it was not the technology itself that led to empowerment; rather, it was participants' decisions about how to develop skills and how to use the technology that led to empowerment. Thus, the strategy of the

organisation to put the participants into a study group helped those who did not know how to use technologies to learn quickly. Similarly, the use of WhatsApp meant that participants were able to gather and share information regardless of their gender or initial skill level.

This finding corroborates the findings of Gray, Gainous, and Wagner (2017) and Mutsvairo and Ragnedda (2017). They agree that the use of social media technology can ensure a free flow of communication between both male and female, where participants not only have access to information provided by the organisation but where they also can gather and disseminate information themselves. Other studies (e.g. Abubakar and Dasuki, 2018) have shown that the use of social media has enabled women to obtain information from sources other than conventional or government-controlled media sources.

Using technology to share resources, knowledge, and skills can also lead to a form of collective empowerment (Wahid et al., 2017), as it can encourage women to become active participants in the quest to satisfy their information needs. This is because collective empowerment has a profound impact on women and ensures that women are not merely consumers of digital technologies but are actively participating in the socio-political sphere (Kabeer, 1994).

Despite the advantages noted in using technologies in that context, the participants in this study (some of whom already had significant experience with online learning) indicated that learners preferred a learning approach where a trainer was available to act as an intermediary between the learner and the technology. This was especially true when they perceived they had a problem that needed speedy resolution. Spiegel and Rodríguez (2016) and Vrana (2018) agree that mLearning may deny students valuable mentoring experiences and despite the expectations of the participants that a trainer would be available to them. This expectation was not met by one of the NGOs, even while live streaming sessions, something that must be seen as a missed opportunity for engagement and active learning.

Learning with technology can be distracting because learners are on social media and often tend to check their social media page for updates, thereby reducing their level of

commitment to their learning. This, in turn, affects their motivation to put in the effort to study. Hence, they will not be able to achieve a lot online. This situation has been identified in several studies, including that by Selwyn et al. (2017). Similarly, Creelman, Árnason, and Röthler (2017) found that students get distracted when learning online using digital tools as they often use them for social connections rather than learning.

6.4 CONFRONTING THE DIGITAL DIVIDE

Ragnedda and Ruiu (2017) proposed that the digital divide is a complex phenomenon with three levels: access to technology, possession of the appropriate knowledge and skills, and social capital. This study provided evidence of the existence of a multi-level digital divide. In this section, the findings will be considered within the context of these three levels of the digital divide

As has already been discussed in the literature review, women in rural areas may have access to mobile devices but not to the Internet. As a result, they might not be aware of the empowerment programmes available to them. In this study, women in rural areas may not own a smartphone, but they expressed interest in learning how to use digital technologies. Despite this, the NGOs in rural areas and in urban areas expressed that because mature women tend to be poor and poorly educated, they may not be interested in learning about technology, and so they instead focussed on training young girls on the use of digital technologies. This is because the NGOs (except for NGO C) advertise their programmes online, meaning that the women who do not have easy access to technology are not aware of the NFE opportunities provided by these NGOs.

The fact that most of the features of smartphones are in standard English makes the devices inaccessible to African users who cannot read or speak in the standard English language. Most contents on the web are in English, and rural dwellers who do not understand the English language are not able to access these resources (Melhem, Morell, and Tandon, 2009). Thus, this poses a barrier for rural women who generally only know how to speak Pidgin English, which is the official mode of communication in rural communities. Further, the training content used in the programmes is provided in standard English. These women have not been privileged to attend any formal education, and so they do not know how to read or write in standard English.

This poses a challenge for the NGOs to train the women. Olatokun (2017) stated that it is difficult for learners from rural areas to take advantage of text-based interactions because many indigenous communities speak various dialects, and English (the language of instruction) may be foreign to them. Moreover, because these rural dwellers have long-lasting oral traditions and depend on verbal forms of communication, it is difficult for them to learn new content and ideas through online courses that hinge on reading and writing, which could discourage them from learning online (Olatokun, 2017).

The second level is the divide in terms of skills and use of technology. van Deursen and van Dijk (2019) and Scheerder, van Deursen, and van Dijk (2017) argue that the emphasis in discussions of the digital divide is currently on whether the individuals possess the relevant expertise to use the technologies effectively. It is not enough to have access to digital technology – it is equally important to know how to use technology productively. While it might be assumed that everyone knows how to use a mobile device for the basic function of communication, not everybody knows how to use mobile technology to search for information online.

The focus on STEM education in two of the NGOs consequently screens out some women from attending such programmes, thus limiting their chances to gain other knowledge that will be beneficial to them. This is because the criteria for participating in the programmes include having at least a foundational knowledge in computer use. Corroborating this view, Salemin, Strijker, and Bosworth (2017) state that the hindrances in the penetration of technologies, and the low literacy rates in rural areas have a negative impact on the adoption and use of technologies in these areas. Therefore, public policies need to acknowledge the specific needs of rural dwellers because they have the greatest need for improved digital connections, are often left out in ICT infrastructural development, and are the least connected. Thus, in this study, it is worth noting that most women in rural and suburban areas do not have access to computers and do not know how to use them, thus reinforcing two levels of the digital divide.

To compound this lack of skills, it appears that NGOs are not willing to provide basic training to women who have very low or non-existent knowledge and skills in computer

use. Rather, the effort to provide basic computer training is channelled to girls who are already in the formal education system. From this, as Banaji et al. (2018) submit, one could argue that the increase in the interest in digital technologies presents a risk that society will lose sight of the broader perspective of the contexts and meanings of the place of technologies in the lives of individuals specifically how these technologies contribute constructively (or otherwise) to the lives of the people.

Further disadvantaging women who may already be marginalised because of a lack of general education and familiarity with computers or the broader functions of mobile technologies, one of the NGOs conducts interviews and online assessments before selecting participants. This makes it even more difficult for poor women who do not have access to education to participate. This is in line with the findings of Gulati (2008), who stated that in various developing countries, those who benefit from new infrastructures and investment are the rich, the upper and middle classes, and the urban elite. It is also stated that despite prior attempts to improve IT access in third-world countries, organisations promote opportunities for only a select few while the majority of the population is left behind.

In setting up this study, it was easier to identify relevant NGOs in the city than in the rural areas, and the interviews with participants revealed that the location of the training made it difficult for people who live outside the city to commute or participate in the programmes. This notion is supported by the findings of Nandan and Kushwaha (2017) and Mahmud (2017), who noted that because NGOs provide training in specialised skills, they are usually located in major cities where there is adequate teaching staff. This contributes to the inaccessibility of programmes for the rural poor. This situation also makes the programmes expensive for rural dwellers to access, as it might force them to travel to the cities to access the education, thereby increasing the total cost of acquiring the knowledge (Ali and Khawaja, 2017).

The findings of this study suggest that although the advertisements indicate the training and programmes are open to the public, only a select few, such as the educated, can take advantage of the training. Studies by Rose (2013) and Palmer (2014) corroborate this finding. Rose (2013) and Palmer (2014) conclude that due to the lack of prioritisation

and the confusion as to what skills NGOs should invest in, there have not been appropriate experiments conducted to provide affordable skill-training programmes for income-generating purposes among members of communities living in abject poverty.

This lack of formal education and of skills can be considered basic in contemporary urbanised society. Thus, a double bind is created for these women. NFE, the very route that is presented as providing opportunities for those who have not benefited from formal education is denied to them precisely because they do not have formal education. Participants from the rural area in this study have no opportunity to enhance their skills, as they do not have the money to enrol in formal education, while NGOs exclude them because they fail to meet the criteria of the NGO or the expectations of the NGO staff.

The third level of the divide (identified by Ragnedda and Ruiu) is related to the perceived benefits that participants can gain from interacting online, something that is influenced by social capital. Social capital consists of social structures and resources that facilitate the actions of individuals, providing opportunities for them to work towards objectives and meet their goals (Coleman, 1993, as cited in Ragnedda and Ruiu, 2017). One of the NGOs believes that because the women are poor and uneducated, they may not be interested, and so they instead focus on training young girls. However, when I spoke to the women who had been labelled 'indigent' by staff in the NGO, these women expressed their interest to learn more about technology and use mobile technology to learn online.

Corroborating this finding, Abubakar and Dasuki (2018) found that rural women in a northern community utilise WhatsApp technology to empower themselves and share information, ranging from information about health-related, economic, and social matters. Similarly, Melhem, Morell, and Tandon (2009) indicated that despite issues of literacy and Internet access, the interest of rural women makes digital technologies significant. On the other hand, Navabi, Ghaffari, and Jannat-Alipoor (2016) submit that some adult learners may have feelings of apathy toward using mobile technologies due to language barriers, their low levels of literacy, and technology anxiety. However, this may seem like an obstacle to adopting the use of technologies for learning, the benefits

of acquiring knowledge and skills in the use of these technologies for personal and professional developments far outweigh the negative effects.

The process of socialisation in the era of digital revolution requires access to and the ability to use the new technology effectively, and it has been said that digital exclusion is the new social exclusion (Serrano-Cinca, Muñoz-Soro, and Brusca, 2018; Essien, 2018). Individuals who are tech-savvy will outpace people with limited access to technologies. The findings of this study evidence this. While those who are tech-savvy take advantage of their knowledge to make social contacts and join self-help groups online, the people in rural communities who do not have this advantage are excluded from the digital space. Due to the prerequisite for aspiring participants to have access to education or to have the basic knowledge of technology to be eligible to participate in the programme. Consequently, less educated women and older women (especially those in rural areas) have no opportunity to even apply for these NFE programmes.

Mackowicz and Wnek-Gozdek (2016) and Ransdell, Borrer, and Su (2018) submit that encouraging adults to participate in educational opportunities using technology teaches them how to use digital technology, thereby equipping them with the necessary knowledge and skills that they need to live their lives in this technology-driven world. However, my findings contradict this position. From my findings, we can see that the NGOs were more interested in the empowerment of younger and educated people. While it can be deduced that this is due to the high proportion of young people in the population in Nigeria, it does not excuse the NGOs from excluding an already marginalised population of women. Melhem, Morell, and Tandon (2009) agree that for women to benefit from the information society, they must have access and the knowledge and proficiency necessary to use ICTs. Women and girls are at a disadvantage and will find it more difficult to benefit from the information-based society. This is because they are less likely to own computers, tablets, or other mobile devices, apart from a telephone, or even to attend formal education at a more advanced level.

This study provides evidence that marginalised women are at a disadvantage and agrees with the submission of Adeyinka and Aluko (2018) that new technology can work against the immediate interests of women. As has already been established, empowerment

entails providing women with the resources they need to improve their standard of living. Providing technology education to women is important, especially with the digital revolution, as women need to be abreast of the trend to compete on an equal footing in society.

The findings of this study show the importance of a conclusion drawn in a report by UNESCO (2011) that there is a need for a more thorough analysis of the effects of technologies on poor women. New technologies can work against the immediate interests of women. Billetoft (2014) submits that formal technical education programmes do not contribute significantly toward alleviating poverty, especially in most developing countries, where a relatively high percentage of the population is destitute and has no access to technical education (UNESCO, 2012).

The findings of this study show the workings of the digital divide through the recruitment of participants online and the selection of younger participants with educational qualifications. This is in line with the position of van Deursen and van Dijk (2019), Cruz-Jesus, Oliveira, and Bacao (2018), and Hargittai, Piper, and Morris (2018) who posit that the older generation, people with lower levels of education and income, and people who reside in rural areas with poor infrastructure coverage are mainly affected by the digital divide. This reinforces the position that the digital divide is not confined to the availability and accessibility of technologies but also includes whether the individuals possess the relevant expertise to use mobile technology effectively. It counters the position of Chun (2015), who argued that the emergence of free WiFi, open-source platforms, and free content websites eliminated the factors that were once a hindrance to effective communication between learners, thereby increasing the opportunities for learners to communicate, interact, and participate in the learning process.

The proliferation of new technologies may have created opportunities for developing countries in the global sphere, but little has been done in regards to providing access to educational opportunities to the marginalised group. As has been discussed above, though a majority of women in Nigeria (including those living in rural areas) have access to digital technology, to some extent, the NGOs provide the technology. Still, their

inability or the lack of basic knowledge limits their participation in the programmes. Thus, in Nigeria, as in many other developing countries, there are still many women from lower social classes and rural communities who are marginalised because of their inadequate access to learning materials and basic education. Rather than removing the barriers disadvantaged people face in information-technology-related areas, as Hespanol et al. (2018) argue, NGOs further exacerbate (often unintentionally) the digital divide.

6.5 POWER RELATIONS

An exploration of the empowerment of women through NFE programmes would not be complete without a consideration of power and power relations. To narrow the scope of this topic, the discussion will focus on ‘power over’ – power to exercise control over others such that they have to comply – and ‘power to’ – the generative power that leads to the creation of possibilities without domination Rowland (1997).

From the findings, we can see that power relations influence the empowerment of women. The relationship between sponsors and NGOs shows the exercise of ‘power over’. Statements in the online presence of the NGOs imply that the NGOs, their sponsors, and their donors believe that increasing local access to resources and services is enough to empower women. However, it appears that there is a dichotomy between what the NGOs say what they stand for and what they do; neither the sponsors nor the NGOs invest their time to include the community in the decision-making processes related to the development of the NFE programmes. Rather, the funders or the NGOs determine the programme objectives. While the rhetoric may be that women’s NGOs exist to empower all women, regardless of their socio-economic backgrounds, this is not always the case, including for the programmes in this study. Because the NGOs rely on sponsors and are concerned about sponsors withdrawing financial support, they sometimes tailor their programme content to suit the requirements of their sponsors. In some instances, the relationship between an NGO and its sponsor is such that the NGO may serve as a channel to execute the programmes of their sponsors. Khieng and Dahles (2015) showed that NGOs sometimes operate as contractors to sponsor, organise, and run programmes based on the sponsors’ stipulated rates and timeframes. Sometimes, the sponsors, not the NGOs, decide who attends a programme.

This situation conflicts with the education empowerment theory, whose goal is to challenge entrenched power relations and with the belief that NGOs serve the needs of the marginalised. Here, marginalised women are still restricted and deprived by an elitist group and are not allowed to choose to make their own decision. The education empowerment theory facilitates an understanding of the situation for rural poor and marginalised groups and what can be done to improve individuals' and societies' abilities to move toward harnessing resources and strategies that will enable them to achieve their goals (Nikkah, 2010).

Many studies have found that women are the most likely to suffer from poverty (e.g. Lilenstein, Woolard, and Leibbrandt, 2018). My findings suggest that marginalised women are still suffering from poverty because of their inability to go to school. A lack of concern about the empowerment of participants can also be seen to some extent in the evaluation processes undertaken by NGOs and their sponsors. My findings indicate that major donors, including national and international sponsors, are more interested in the monitoring and evaluation processes rather than the needs of the participants. NGOs may be more interested in the number of participants they accept, which can be taken as evidence that they are active and working to achieve tangible goals, which helps them to secure more funding. While it is important to collaborate with sponsors, NGOs may find it difficult to balance to the requirements of sponsors and the challenges related to the inclusion of marginalised women in programmes of NFE which lead to empowerment. Therefore, Cusumano's (2019) argument that the expansion of NGOs' relationships with international organisations diminishes their resolve to advocate for the rural people could be explored in the light of the present findings.

Another source of power is that relating to the status of organisations and their roles in providing education. One of the problems still plaguing Nigerians in regards to effectively using digital technology for educational purposes is the lack of appropriate structures and facilities. Government and academic institutions in Nigeria see themselves as significant in the development of the people, something that cannot be contested. However, the background to this study has shown that NGOs are influential in filling a gap in providing NFE. Moreover, this study has demonstrated that NGOs have an essential role in the development of skills related to the use of digital technologies.

It might be assumed that not-for-profit organisations that help to meet a national objective would receive support from the government and formal educational institutions, as the NGOs are working towards the empowerment of women (Valk, Rashid and Elder, 2010). However, the findings show that this assumption was ill-founded. The NGOs using venues outside their own premises were expected to pay for the venue. The assumption seemed to be that because NGOs attract funds from donors, some of which come from overseas, they have more than adequate financial resources. Even though the NGOs paid for some of the venues, the institutions did not make the room and facilities available to a satisfactory level, and this affected the NGO's ability to offer the training programme. Such a situation may be a factor in the level of decline in Nigerian NGOs' commitment, as they face the challenge of corruption and bureaucracy (Rafindadi and Olanrewaju, 2019).

NGOs also have relationships with their communities, which, to some extent, are based on collaboration and cooperation. In this study, the NGO located in a rural community was more concerned about the immediate needs of the people. As such, they ensure the involvement of women in the development of ideas and content before implementing the programme. This NGO did not assume that they knew what the women needed and conducted a needs analysis before setting up the programme.

The importance of community participation from the NGO's perspective is that it enables the NGO to target the immediate need of the participants and provide the programme that will meet these needs. However, more importantly, a mutual relationship between the NGO and the rural women was identified, and both parties worked collectively to work towards shared goals. The participants learned what they needed the most. The strength of this shared commitment was evident in the responses of participants in that programme to the interview questions, as they all gave similar answers. We can see that this influenced the empowerment process. The approach of this NGO is at odds with the finding of Osei (2017) that NGOs did not meet the rhetoric of local participation in development programs. A potential explanation for this emphasis on accountability to the local community could be that most of their sponsors are local and national organisations.

Finally, the importance of the relationship between society and NGOs and the approach to the empowerment of women cannot be overlooked. From the background and findings of this study, it is apparent that society influences the empowerment of women. One of the NGOs advised that they had to include male and female participants in their training due to pressure from the public. By taking the position of the public, the NGOs stance negated the position of the WAD approach, which argues that social inequalities render women subordinate and vulnerable to projects that do not consider their interests. WAD calls in part for women-only projects to ensure their participation and to prevent male domination.

In the present study, one of the programmes intended for women had more male participants than female participants. Pressure from the community to open the programme to men might explain why some men were included in the programme, but it does not explain why there were fewer women than men. Women had access to the same information the men had about the programme, so that does not seem like a plausible explanation. This study has no data on women who applied but were not accepted or who were interested but did not apply; thus, I am in no position to speculate on the matter.

Conley (2017) argued that digital technology has tremendous potential to bolster women's empowerment; however, they inadequately address the question of gender inequality. There is some evidence that some women enrolled in the programme alongside men with a sense of being inferior to their male colleagues. Therefore, knowing men were to be accepted into the programme might have deterred some women from applying.

6.6 CONCLUSION

This ethnographic study aimed to investigate how NGOs in Nigeria use NFE to empower women using digital technology. The discussion of the findings sheds light on each of the conceptual aspects underpinning this study. The findings also have implications for NGOs that offer programmes intended to empower women.

The conceptualisation of NFE should not be limited to the provision of programmes of learning offered by organisations that are not recognised as institutions of learning. This

study has shown how NFE can be implemented through the provision of information, as well as through access to expertise in mentoring programmes. This demonstrates the importance of recognising that learning can take place outside of a formalised educational setting.

Kabeer's empowerment framework (1999) is a useful analytical tool for exploring the various factors involved in the empowerment of women. However, this study reinforces the importance of understanding this framework not as a series of independent elements but as an integrated set of inter-relationships. Agency is only one of the elements of the framework, and in this study, it is seen to have been detrimentally impacted by the elements of resources and institutional structures.

In this study, digital technologies are conceptualised at several levels, both by participants and NGOs. They are the mechanism through which future developments will emerge and be embedded in society; at the same time, they are the physical equipment which individuals may or may not own and the operations and activities that can be carried out online by those with the skills to use the software. Moreover, "digital technologies" is used as a 'catch-all' phrase to encompass the equipment used by the NGOs and their participants in the programmes, as well as the software and methods of achieving outcomes using the hardware and software. In this study, the term "equipment" encompassed laptops for the NGO programmes, as well as tablets and other mobile technologies that use applications such as WhatsApp to disseminate programme resources, maintain contact with participants after the completion of the programme, and enable the participants to share information. The study shows a shift towards mobile devices in the near future.

Finally, the study shows the importance of understanding the digital divide as a complex phenomenon that goes beyond access to the technology and the possession of knowledge and skills to use the technology. The study shows how, as Ragnedda and Ruiu (2017) proposed, societal factors that marginalise certain groups in society continue to operate in the use of digital technologies, and any disadvantage suffered in society at large persists in the use of digital technologies. Ragnedda and Ruiu take a somewhat pessimistic approach, indicating that those who lack social capital will continue to lack

social capital, which is an individual attribute. Their three levels of digital divide provide another useful analytical tool.

However, through the analytical lens of the empowerment framework, this study has provided examples of individuals who have been able to exercise agency such that they have created an opportunity to break the cycle of marginalisation and increase their social capital. This suggests that it is worth considering the context within which social capital has been created and to examine opportunities for any changes in this context that might change in how social capital develops.

CHAPTER SEVEN

SUMMARY AND CONCLUSION

7.1 SUMMARY

This thesis started with an overview of the national context and the background to provide an understanding of the operation of NGOs and the need for NFE in Nigeria. Nigeria faces many educational, economic, and social challenges. Women and girls are significantly affected by these challenges, which include poverty, unemployment, gender stereotyping, the power accorded to men, and the problems around access to education. While these challenges affect women throughout the country and women of every part of society, there is evidence, including from this study, that the social norms that have grown up around these challenges have a detrimental effect that may prevent women and girls from a poor economic background and with less formal education to realise their potential.

The rationale for the current study is based on the inequality in access to quality education in Nigeria and the growth of women's NGOs in Nigeria. In general, there is a lack of empirical research on NGOs' programmes (especially those aiming to empower women through NFE) and the use of digital technology in these programmes in Nigeria. This ethnographic study sought to investigate the NFE programmes aiming for empowerment offered by selected NGOs, the extent to which the participants found the programme empowering, and the use of digital technology to provide NFE.

This final chapter brings together the thesis, outlining its contribution to knowledge and detailing the implications of the findings as they relate to the practices of NGOs in Nigeria. This chapter also provides suggestions for future research.

This study is one of the very few empirical studies conducted in Nigeria on the effect of NFE provided by NGOs on the use of digital technologies and women's empowerment. The relationship between digital technology and women's empowerment has been under-researched. This study contributed to filling this gap. The data presented is a very valuable contribution to the literature in this field.

This study highlighted three important, inter-related findings that surround NGOs and women's empowerment through the use of NFE using digital technology. It found that a quest for better living conditions served as motivation for participants enrolling in these programmes. Thus, for the participants, economic empowerment was the most significant form of empowerment. NGOs took a broad approach to empowerment, as they provided information about women's rights through their online sites to increase women's knowledge about these rights and what courses of action they can take to enjoy their rights. The study also found that the perceptions of staff in NGOs, relationships with sponsors, demands from the community, and methods of advertising influenced NGOs' decisions about the content of their NFE programmes and who was eligible to participate. In particular, the study found that young, educated women were more likely to apply and to be selected than older women with low levels of education, few skills in using technology and potentially less access to computer technologies. Well-educated employed men were accepted into one of the investigated programmes. Thus, the findings of this study suggest that with lower levels of education and fewer economic resources, one might not be able to benefit from opportunities provided through NFE. A divide exists, but it goes beyond what is often seen as a digital divide. This divide is not limited to the access to and use of technology, as it also includes the level of education and societal factors.

While the findings, when summarised in this way, may seem straightforward, the interplay of elements that emerged through the ethnographic methodology has drawn out significant levels of complexity. The inter-related discourses that surround NGOs, programmes of NFE and women's empowerment via the use of digital technology provide an example of this complexity. First is the idea of innovation, wherein digital technologies are conceptualised as new in the sense of involving a move away from the old, exclusive NGO practices of development to the new interest in STEM education and software programming. Of particular concern within this discourse is the acceptance of technological determinism, through which technology is seen to be the harbinger of democratizing change despite prevailing disciplinary and socioeconomic contexts. This discourse has particular relevance for NGOs.

The second discourse is that of inclusion. Here, it is considered that particular groups need to be empowered as they have been marginalised, and NGOs can enable their inclusion using digital technology.

The third discourse is on expertise. The NGOs present themselves as experts in development and thus in empowerment and society at large shares this view, which has become a social norm. Thus, NGOs have been able to establish themselves as experts who know what women want and who can meet these needs. By positioning themselves as experts and aligning with other experts who have particular knowledge and skills NGOs fail to engage in critical and reflexive practice. Hence, participatory relationships, which are seen to be important in discourses of empowerment, do not emerge. In this study, this is evidenced in the influence that sponsors have over the participants and content of the programmes, which, in turn, leads to the exclusion of certain segments of the population.

These competing discourses can explain the disconnection between the discourse of NGO communications and their practices in developing and offering NFE programmes. While the rhetoric is that the programmes and services of these NGOs are for all women regardless of their educational and economic background, their practices speak differently. However, this discrepancy is not entirely the responsibility of the NGOs – the workings of the society we live in and its inherent contradictions are also responsible. For example, the findings demonstrate that some funders, without whom NGOs are unable to provide programmes and services, put in place requirements that marginalise women who have had no access to education. For these women NFE offered an opportunity to gain valued knowledge and skills, however the requirements by the funders further marginalise those who are already marginalised. Here, too, is evidence of competing discourses and the power of funders over the operations of NGOs. The impact of these competing discourses is often seen in studies of the evaluation of NGO programmes and services. Still, in this study, its effects are seen in who is selected into programmes of NFE.

This study has shown that digital technology itself is a double-edged sword. Access to technology (and the development of skills in using it) have significantly changed the lives

of some participants, especially women. Nevertheless, technology has also compounded the disadvantage of other women, especially poor, uneducated women in rural areas. The technologies are costly, and data plans are also expensive; the software assumes at least a working knowledge of standard English, which many rural women do not have. These three factors further disadvantage women who are already marginalised. The study has also reinforced the finding of other studies that reliable infrastructure for learning and teaching is essential for the steady development of skills. The term “infrastructure,” in this study, comprised space dedicated to the offering of programmes of NFE, staff’s willingness and ability to answer questions related to the learning tasks, and most importantly, access to a reliable source of electricity, without which digital technologies become useless artefacts (and learning from pen and paper worksheets cannot be applied).

7.2 CONTRIBUTION TO KNOWLEDGE

The data for this study were gathered in two distinct environments in Nigeria. As noted above, there are societal factors particular to Nigeria that affected the workings of the NGOs and which made opportunities for NFE very significant for women. This study has added to our understanding of the concepts of NFE and of women’s empowerment while also reinforcing a socially based understanding of the digital divide through their applicability to the Nigerian context. However, the study’s contribution to knowledge goes far beyond the use of Western concepts in a non-Western environment.

NFE is generally seen as comprising short courses that may or may not involve assessment tasks to evaluate learning and that do not lead to an accredited qualification. This study has shown that NFE can lead to outcomes that are not an accredited qualification but are nevertheless recognised in the local context as if NFE is as valuable as a formal qualification. The relationships which the NGO has developed and the training programme used taken together give completion of the NFE programme status within the technology industry in Lagos. The study has also shown that the NGOs have a broader perspective on NFE in comparison to the Nigerian government’s position on NFE. NFE is not merely concerned with courses on a particular topic. The NGOs are engaged in on-going efforts to educate women about their rights and to draw attention to critical issues affecting women through posts on their Facebook

pages and websites. This informal awareness-raising may be seen to fall outside a narrow definition of NFE and the anticipated boundaries for NFE set by the Nigerian government. Nonetheless, this study has shown that in the context of women's empowerment, the courses and the seemingly random posts on women's issues come together to provide fresh insights to women, not only those able to enrol in a course. Thus, the study gives a broader perspective on NFE.

This study reinforces Kabeer's emphasis on the interplay among and between the elements in the empowerment framework. Kabeer notes the importance of the interplay among and between the elements in the framework. However, the element of agency appears to occupy a more significant place in the framework than other elements. This study demonstrated that the same programme could simultaneously lead to individual empowerment and collective empowerment. In other words, these concepts (which are often considered in the literature, especially in the literature of development, as separate concepts) are inter-related. Even in a programme of NFE that is clearly aimed at the empowerment of the individual, collective empowerment was achieved both by the women taking the initiative to work together and by the trainer's approach to group work, which gave participants a common goal.

Returning to Kabeer's framework, importantly, the findings of this study show that institutional factors – such as societal norms and beliefs about the position of women and expectations that men are more suited to careers in technology, and access to resources (e.g. electricity) – can thwart an NGO's efforts to develop or enact agency. Institutional factors prevented some women from enrolling in the programmes. A lack of access to electricity meant that even though women had been able to enrol in the programmes, they were unable to fully develop agency because the programmes that would have improved their knowledge and skills (and, thus, would have given them the capacity to act differently) were not delivered appropriately. This study, then, emphasises the importance of agency in women's empowerment and demonstrates how agency can be damaged or even withdrawn if not supported by other elements in the framework, as women can be made to feel worthless because of decisions made by others and can be frustrated in their attempts to exercise agency by factors beyond their control.

Finally, the study provides evidence to support Ragnedda's contention that the digital divide is complex and significantly impacted by social relationships and norms. The results help us understand the complex relationship between Nigerians and the NGO community in a context where research has been dominated by issues ranging from the technical concept of the digital divide to digital illiteracy. These findings reveal a growing need for education in Nigeria in the use of the technologies themselves – a very basic level of education – as well as in the knowledge and skills to exploit the software effectively.

The emphasis on mLearning as a separate approach to computer-based education seems inappropriate in the Nigerian context. Participants in the programmes offered by the NGOs used the technologies they had access to, with the mobile phone often being the most effective technology because of its ready access to the data that made other functions possible. The study also showed the importance of digital platforms, such as WhatsApp in the creation of learning communities. These platforms are expected to continue to play a pivotal role in mediating conversations among the locals after the learning programmes have ended.

Furthermore, this study has shown how entrenched views on the capacity of women in particular circumstances – in this case, women living in a rural area with limited education and poor economic prospects – was at odds with the women's aspirations. In some cases their behaviours, with the consequence that they were deemed incapable of empowerment (or even not worthy of empowerment). This study also showed how those who already had some knowledge and skills were given more opportunities to extend their skills. Meanwhile, those without knowledge and skills were denied opportunities. This was evident in the selection criteria used by one of the NGOs. It was also evident in the awarding of a 'prize' for the group that presented the best proposal – those with the most articulate skills and talents, as evaluated by a panel of judges, were given additional sources of expertise, a mentor, and, consequently, a broad network of professional connections.

This study, then, provides evidence to support Ragnedda's contention that those with fewer resources (including social capital) are further disadvantaged. It also shows how

even in a context aimed at empowering people, those with more resources were given access to extra resources.

7.3 IMPLICATIONS FOR NGOS

This study provides much-needed empirical information about the NFE programmes organised by NGOs to empower women. The ethnographic approach enabled a broad perspective on the workings of these programmes, the practices of the NGOs (including their relationship with sponsors), and the perspectives of staff and participants. Thus, it provides rich data and sound findings that can provide insights to NGOs engaged in programmes intended to empower women by developing their skills in using digital technologies. The findings of the study can also provide other NGOs, their sponsors, and funders with insights that can assist in the design and implementation of policies and practices related to women's empowerment using digital technologies.

The study has highlighted issues that might affect the ability of an NGO to meet its goal of empowering women. These include (i) constraints imposed by funders as conditions for the award of a grant or other form of support, (ii) the perceptions of staff and of the wider community of the capacity of women to learn how to use digital technologies, (iii) the strength of partnerships with other organisation even in contractual relationships that may lead to arrangements that impede the objectives of the NGO and its participants, (iv) access to digital technologies, including payment for data plans without which the technologies cannot be used, and (v) problems related to the reliability of the basic infrastructure, including a stable supply of electricity and a stable Internet connection. These issues have no straightforward solution. Each affects each NGO differently based on local circumstances. Nevertheless, each can have a profound effect on the ability of an NGO to pursue its mission. Thus, NGOs need to reflect on their practices and policies in regards to their vision to be available for the empowerment of all women regardless of their socio-economic status, religion, and physical location.

This study also has several implications that are easier to turn into action. These implications cover a range of topic areas, including the focus of empowerment; the scope of NFE; staff expertise, learning materials, and access to other resources; and the issue of the digital divide.

A significant implication of this study is related to NGOs' assumptions about what women want, as these assumptions influence the practices of recruiting and selecting participants. Engaging women in the development of an agenda for empowerment (as opposed to providing a technology-focussed curriculum developed by others) could help to link new technologies to the aspirations of women and, consequently, to innovations in communities.

The present study has demonstrated how a technology-focussed curriculum led to selection criteria that marginalised women who might have benefitted from involvement in the programmes. Such a focus might give the impression that these women's empowerment programmes do not apply to most women and are a means of meeting government policies to develop STEM capacity.

Similarly, advertising campaigns that are implemented exclusively online exclude women who cannot easily access the Internet. Such practices are not likely to empower women and reduce inequitable access to education. Instead, they widen the divide between those who have education and access to technology and those who do not. This is not to suggest that all programmes should be open to anyone who decides to apply, but NGOs should clarify their purpose and their target audience. They should not adopt a rhetoric that suggests that their programmes are available to all women when this is not true.

The literature and policies emphasise the discussion in Nigeria on the importance of developing women as productive members of society, where "productive" is considered only in an economic sense. Many participants in the programs studied in this research emphasised economic productivity as their motivation for taking part in the NFE programme. This approach focuses on the capacities of the individual. However, the study showed that when given opportunities to develop a level of autonomy in their own learning, participants readily shared their knowledge and skills, and they developed collective empowerment, which could sustain them as they become more skilled and face new problems. Therefore, NGOs that provide programmes aimed at empowering women could consider strategies for moving beyond a skills-based approach to individual empowerment towards a level of collective empowerment. This approach

would not only support participants after the programme has been completed but which could also emphasise the broader development of the community rather than solely the economic empowerment of a small number of members.

NGOs could also consider the implications of the findings of this study. NGOs can extend NFE beyond the provision of courses to include information campaigns and broad contents related to local and international happenings focusing on women and their rights. Although all the NGOs in this study posted information on women's rights in their online sites, no participants mentioned it, leading to the question of who the intended audience for those posts might be.

The literature indicates that a potential problem for NGOs offering NFE – especially NFE involving digital technologies – is that the trainers may themselves be insufficiently educated in terms of the content and in methods of adult education. This could harm the development of original content and its presentation. In turn, these circumstances might lead to the use of online content without due consideration for its suitability. Although one of the NGOs used existing content devised by the sponsoring organisation, the practices of the others emphasised the uniqueness of their programmes, and they provided content that was responsive to the needs of their participants. NGOs that develop their own content or adapt existing content to their needs should consider the options available for establishing and disseminating information about the specific set of capabilities, strategies, and mode of training for the programme. They should also acknowledge that any information and new ideas should be shared and that significant outcomes will emerge from collaborative work. The approach to the collective development of knowledge and understanding demands that trainers relinquish the teacher's position of authority and adopt the roles of facilitators. Such an empowered approach to learning can be extended through the use of mentors, who can support women as they gain confidence in their newly learned skills and provide them with examples of real-world experience. Such an approach has the advantage of making NGOs very visible as their own support base within a community.

The findings of this study indicate that NGOs may have to maximise the potential of digital technologies. These are still being used primarily for basic informational and

promotional purposes. Though some NGOs have tried to utilise interactive aspects of the technologies, few people participate in the conversations started by the NGOs; in other instances, participants attempted to establish interactions but without engagement from the NGO. Often, tasks related to the maintenance of an NGO's online presence are the responsibility of volunteers, which is why NGOs' engagement appears haphazard and ill-coordinated. However, the potential of digital technologies is such that a suitably qualified person should manage the online presence of NGOs so that the learning resources are appropriate to the technology and can be made available to groups of participants through private spaces while public sites are clearly targeted and support the mission of the NGO.

I believe that for NGOs to move towards empowering all women, they should reflect critically on their structure and criteria and should aim to define the particular socio-economic contexts in which they operate. Collaboration among NGOs should be encouraged, but NGOs should pay attention to their contexts of practice.

It is important to inculcate participatory action from the inception of a programme to the execution of the programme. NGOs should use all forms of communication to attract attention to women. Nevertheless, digital technology is one of such avenues because they fascinate women. The involvement of women in the planning and implementation stages of the programmes may influence their participation in the training sessions. Targeted collaborations should be adopted where particular communities, groups, or individuals are particularly in need of inclusion. Currently, NGOs do not appear to be actively seeking out particular groups of people who have been marginalised and who might wish to be included. This does not imply that NGOs are insincere in their desires to create more avenues to empower women and to be inclusive to all women, but it does reveal the diversity of the participants in any given training session.

The damaging impact of targeting a certain demographic of women is that societal inequalities could be reinforced because those who already have access to education are often seen participating in empowerment programmes. At the same time, previously excluded groups continue to be excluded. NGOs should not be discriminatory in their

choice of participants. While NGOs train people who have already had access to education, they should also give similar opportunities to rural women.

The quest for gender equality will not be successful if rural women remain marginalised. NGOs and stakeholders in women empowerment in Nigeria should realise that it is good to focus attention on the equal distribution of access to resources and opportunities to every woman regardless of their educational qualifications. To achieve this, NGOs should ensure that they consider the interest of every woman when sourcing funds from stakeholders for any proposed programme. Rather than tailoring their proposals to cater to the needs of the funders, NGOs can work around their proposals to benefit the funders and the women whom they aim to serve. The onus lies on the NGOs as facilitators and their position at the forefront of women's empowerment to provide compelling reasons to make every programme accessible to rural women. The first line of action is to understand the needs and aspirations of rural women to find out what they find interesting and valuable and to consider this input in their proposals.

NGOs can enlist the help of local libraries within rural communities to obtain help with training and teaching women in these communities. NGOs can equip libraries with the required technologies and train the librarians. This can go a long way, as these libraries are within the localities, and the librarians can relate well to the women who visit them. This is not farfetched, as NGOs have already done this in urban regions.

Still, in line with the subject of collaboration, NGOs should involve telecommunication providers that can provide Internet access, especially in rural areas where Internet access is expensive. Furthermore, urban NGOs should collaborate with rural NGOs

7.4 FURTHER RESEARCH

This study has contributed to an under-researched area, and the data presented makes a significant addition to the literature. The outcomes of this research contribute to the growing need to critique and analyse the role NGOs play in empowering women via NFE using the available digital technologies by combining offline and online ethnographic research methods. At the same time, the study has revealed other questions that need to be answered and other topics that need to be explored.

First, this study can be extended to other NGOs located in other states in Nigeria. The ethnographic approach has provided interesting and useful answers to the research question and insights into the key concepts. However, it has focused on the activities of only three NGOs in Nigeria, a country recognised for its diversity and for the strength of its NGO sector. Thus, additional data from communities in different parts of the country and with different characteristics would be useful in confirming the complexity of supporting women's empowerment through digital technologies.

Second, further research could explore the concept of power dynamics, which affects inclusive women's empowerment in Nigeria. For example, an investigation of the influence of international sponsors and donors on the practices and responsibilities of NGOs and their relationships with their local community using an ethnographic approach could lead to useful insights into how NGOs work to implement an agenda with implications for community-based civil society as well as for national development objectives while also meeting the requirements of funders whose values are derived from the corporate world.

Third, there is a possibility for collaboration, sharing experiences, and learning resources among NGOs. ICTs have been shown to provide various avenues to bring educational opportunities to those excluded from the formal system of education, such as rural dwellers, women, and students with disabilities or specific vocational training needs. It is claimed that ICTs have significantly enhanced the affordability and accessibility of education for children in rural and disadvantaged communities. Similarly, it is claimed that the emergence of online learning platforms has made education feasible for all. This study has shown that the concept of NFE in the Nigerian context should be broadened to include the information disseminated by the NGOs through their online sources. Some participants in this study indicated that they had learned a range of skills and techniques from open online sources. An investigation into the use of such sources in the development of digital literacies by people without formal education would provide data to complement the data available from NGOs providing programmes of NFE in digital technologies and from official sources on formal education in schools and universities.

Fourth, researchers must acknowledge that digital technologies function as a two-edged sword. The use of digital technologies still offers novelty in research topics; they are valuable tools that can potentially reach a diverse group of people and provide easy access to a range of resources. Much of the literature focuses on stories of success in using these technologies to improve opportunities for individuals, especially through the work of NGOs. Such examples are important both for research and in practice. However, researchers cannot afford to pay attention to this topic simply because of case studies that claim success amongst NGOs that have implemented a particular model of empowerment or NFE or have used digital technologies in a particular way. Despite the success of NGOs in empowering women through programmes of NFE using digital technologies, the present study shows that NGOs have not always enacted the principle of equality and inclusion in their programmes. It is also likely that some programmes do not achieve their stated goals, and it could be useful to study these programmes. Thus, further research into situations where digital technologies worked against the empowerment of women would provide data that could extend understandings of key concepts. This assumption attaches agency to the tool of digital technology and runs the risk of falling into technological determinism, where women are only seen as a target group that profits from using digital technology to effect a change. This consideration reveals the importance of examining the role of women in the process of developing technology education and the way technology embeds with existing knowledge production.

Fifth, further research is needed to consolidate the reconceptualization of the digital divide so that it incorporates aspects of social life, which influence the use of digital technologies and the development of skills to fully exploit these tools. Research in this area could explore the knowledge and skills of trainers and their collaborative interactions with learners and the social norms in a given community that either promote or impede girls' and women's engagement with digital technologies.

Finally, it would be useful for future researchers to investigate what digital technology tools suit specific projects and courses, including effective methods for using digital technology to empower rural women. The use of Whatsapp, in particular, could be

explored. More significantly, however, in the Nigerian context would be explorations of how local mLearning platforms such as Gidimo can be used to empower women.

7.5 LIMITATIONS OF THE STUDY

Every study has limitations, and this study is no exception. The present study is limited in that it is an ethnographic case study focusing on the practices of three NGOs. Its findings cannot be generalised to all NGOs in Nigeria or even to other NGOs in Lagos, the site of two of the NGOs. The NGOs selected for the study have a strong online presence, which is not common among local and national NGOs in Nigeria.

Time constraints created other limitations. The time allocated for data collection was constrained. More extensive interviews, including those with former staff of the NGOs and former participants of NFE programmes, could have produced more detailed data on the reasons that NGOs had for using digital technologies in a particular way or indeed for not using certain aspects, including functions of social media. The security issue in the state where one of the NGOs was located meant that I was unable to visit in person and, thus, could not conduct a full ethnographic study of the programme. I opted for a Skype call to observe the training sessions. Despite the time constraints, I was able to gather dependable results.

Another limitation was the language of rural women. As a Nigerian, I understand and speak Pidgin English fluently. For this reason, I switched to Pidgin when conducting the interviews with the women participating in the programme of one of the NGOs, as they could not understand or speak Western English. I acknowledge that they may have been somewhat uncomfortable while speaking to me, an educated Nigerian woman studying overseas. Thus, they may have been less forthcoming in the interviews, as they might not have developed complete trust in me.

Another issue arose that may have been related to trust. Responses in a few of the interviews conducted in one of the NGOs were almost identical. I had worked hard to establish trust and open relationships with these participants so that I would be able to gather authentic responses to my questions. It is not clear why I did not achieve that with this small group, although two come to mind: I had not established trust with these

participants and so they merely told me what they thought I wanted to hear, or they had been briefed by the NGO staff about how to answer particular questions.

A final limitation that affected the data collected was the location of the interviews for one of the NGOs. An ethnographic study needs to take account of the environment in which participants interact. However, this environment might not be conducive to the demands of data collection. In this instance, the interviews were conducted during a lunch break in the classroom where participants took their lunch. There was significant background noise in the room, and the responses from a few participants were inaudible.

Notwithstanding these restrictions and limitations, the data collected in this ethnographic study are rich, enabling the research questions to be answered and providing a solid basis for the reconsideration of key concepts.

7.6 CONCLUSION

This thesis highlighted three areas of empowerment targeted by NFE programmes organised by three NGOs. The first area of empowerment is economic empowerment, as participants are taught how to start a business or are trained such that they have a competitive advantage when looking for employment. The belief is that participating in the programme helps the participants to stand out from other members of society because of their additional technological skills. The second area of empowerment is psychological (or personal) empowerment, which has contributed to the improvement of women's self-esteem, going some way to counter the cultural restraints placed on women by Nigerian society. Third, the NGOs provided knowledge empowerment to the participants, equipping them not only with the specific knowledge and skills from the programme content but also with general knowledge about other issues that affect women and how they can navigate through those issues.

However, many factors related to the use of digital technologies for the empowerment of women have a negative aspect as well. NGOs have drawn on the perception that digital technologies are ubiquitous in their ability to empower women in Nigeria. Digital technologies have been conceptualised as necessarily participatory in providing equal access to opportunities, information, and educational resources.

Debates regarding digital technology and persistent issues related to the digital divide emphasise socioeconomic awareness, the potentially damaging ongoing and historical impacts of discriminatory practices, and (in some cases), the need for socio-economic intervention. These debates impact on any study that explores the possibilities of using digital technology to empower marginalised women. Within empowerment studies, these debates have attempted to position NGOs as important and socially relevant cultural institutions involving diverse socioeconomic considerations and ethical obligations. In response to these debates, NGOs have seen digital technology as enabling participatory and collaborative relationships with their participants. However, the findings of this study suggest that despite using digital technologies in programmes aimed at empowering women, the process is neither as inclusive nor as participatory as it could be. Rather, there is some evidence that these programmes further strengthen the digital divide due to the power dynamics at work such as sponsor influence, NGOs' influence, and the influence of society.

Of course, it is unrealistic to expect the NFE programmes provided by NGOs to change the norms and practices embedded in Nigerian society. Nonetheless, the benefits of women's empowerment reach beyond the individual woman to her children, into her household, and to the community. Thus, the study's findings highlight the need for holistic policies that consider the challenges faced by marginalised groups and aim to provide basic and primary educational facilities to promote inexpensive, high-quality access to education in remote and marginalised communities. In a country like Nigeria, this is needed to enable its diverse population to contribute to society and participate in and benefit from today's global, technology-driven society. The findings of this study strongly indicate the importance of NGOs' positions as participants in debates and their actions related to women's empowerment through the use of digital technology.

APPENDIX ONE

PARTICIPANT DEBRIEF

Project Title: The use of digital platforms by NGOs for women empowerment in Nigeria via NFE.

Dear,

I am undergoing a research aimed at developing a framework for enhancing the productive use of digital platforms by NGOs in empowering women via NFE in Nigeria.

This study aims to develop a framework for enhancing the productive use of digital platforms by NGOs in empowering women via NFE in Nigeria.

I do not anticipate that taking this study will contain any risk or inconvenience to you. Furthermore, your participation is strictly voluntary and you may withdraw your participation at any time without penalty. All information provided by you during the course of the study will be used for research purposes and will be kept confidential (with the exception of using the name of your organization). There will be no connection to you specifically in the results or in future publication of the results. Once the study is completed, I would be happy to share the results with you if you desire. In the meantime, if you have any questions please ask or contact the researcher at [REDACTED]@student.uts.edu.au

The data collected in this study may also be published in books, journals or presented at conferences. Information and data gathered during this research study will only be available to the research team identified in the information sheet. Should the research be presented or published in any form, all data will be anonymous (i.e. your personal information or data will not be identifiable).

All information and data gathered during this research will be stored in line with the Data Protection Act and will be destroyed 12 months following the conclusion of the study. If the research is published in a journal or books it may be kept for longer before being destroyed.

This study and its protocol will receive full ethical approval from the Faculty of Arts, design and Social Sciences Research Ethics Committee before the commencement of the data collection.

After signing the informed consent form you will be required to participate in an ethnographic study on how your organization operates especially with respect to empowering women using digital platforms. In the course of the study, some data will be collected through informal conversations and interviews.

Yours,

Name of Researcher: Ekwughe, Victoria ([REDACTED]@student.uts.edu.au)

Name of Supervisor: Dr Bruce Mutsvairo (Bruce.mutsvairo@uts.edu.au)

APPENDIX TWO

PARTICIPANT INFORMED CONSENT FORM: INTERVIEW

Institute of Research: University of Technology Sydney, Faculty of Arts, Design and Social Sciences Sciences

Name of Supervisor: Dr Bruce Mutsvairo (Bruce.mutsvairo@uts.edu.au)

Contact number: +61 [REDACTED]

Name of Researcher: Ekwughe, Victoria ([REDACTED]@student.uts.edu.au)

Contact number: +61 [REDACTED]

Title of Research Study: The use of digital technologies by NGOs for women empowerment in Nigeria via NFE.

Please tick or initial where applicable

I have carefully read and understood the Participant Information Sheet.	<input type="checkbox"/>
I have had an opportunity to ask questions and discuss this study and I have received satisfactory answers.	<input type="checkbox"/>
I understand I am free to withdraw from the study at any time, without having to give a reason for withdrawing, and without prejudice.	<input type="checkbox"/>
I agree to take part in this study.	<input type="checkbox"/>
I would like to receive feedback on the overall results of the study at the email address given below.	<input type="checkbox"/>

Sign.....

APPENDIX THREE

PARTICIPANT INFORMED CONSENT FORM: PARTICIPANT OBSERVATION

Institute of Research: University of Technology Sydney, Faculty of Arts, Design and Social Sciences Sciences

Name of Supervisor: Dr Bruce Mutsvairo (Bruce.mutsvairo@uts.edu.au)

Name of Researcher: Ekwughe, Victoria ([REDACTED]@student.uts.edu.au)

Contact number: +61 [REDACTED]

Title of Research Study: The use of digital platforms by NGOs for women empowerment in Nigeria via NFE.

I hereby give my consent toresearch student in the Faculty of atwhose signature appears below, to record the activities of this organization as part of her research study.

I give permission for the use of these data, and other information which I have agreed may be obtained or requested, in the writing up of the study, subject to the following conditions:

Participation in this study is voluntary, and I understand that I may withdraw from the study at any time.

Participant.....Date.....

Researcher.....Date.....

APPENDIX FOUR

Interview Guide for Participants

What do you do for a living?

How did you hear about the programme?

Why did you come for this programme?

What aspect of the programme do you like the most?

How comfortable are you with online learning?

Are you enrolled in an online learning platform?

What do you think about the NGO also making their programme available for online learning?

How effective have the programme been?

How have attending this programme influenced your career choice?

What are the challenges you face when using digital technologies to learn online?

What would you do differently if you were part of the NGOs?

APPENDIX FIVE

Interview Guide for programme directors

What is the aim of organising this programme?

How did you select your participants?

How do you use digital technologies for your programmes?

What are the challenges that hampers the effective use of digital technologies?

How do you measure the effectiveness of the programme?

BIBLIOGRAPHY

ABIODUN, T. F., ONAFOWORA, O. & AYO-ADEYEKUN, I. 2019. Alarming rate of child poverty in northern Nigeria: Implications for national security. *American Research Journal of Humanities Social Science*, vol. 2, no.1, pp. 1-10.

ABUBAKAR, N. H. & DASUKI, S. I. 2018. Empowerment in their hands: use of WhatsApp by women in Nigeria. *Gender, Technology and Development*, vol. 22, pp. 164-183.

ACUFF, J.B., 2018. Black feminist theory in 21st-century art education research. *Studies in Art Education*, vol. 59, no. 3, pp. 201-214.

ADAMU, H. 1996. Women Education: Meaning and Importance. *Nigerian Journal of Curriculum and Instruction*, vol. 3 no. 2.

<http://www.globalacademicgroup.com/journals/nact/Hadiza.pdf>

ADELEKAN, I. O. 2018. Urban Dynamics and Everyday Hazards and Disaster Risks in Ibadan, Nigeria. *Environment and Urbanization*, vol. 32, no. 1, pp.213-232.

ADELORE, O. O. & OLOMUKORO, C. O. 2015. Influence of literacy education programmes on socio-economic empowerment of women in Edo and Delta States, Nigeria. *US-China Education Review*, vol. 5, no. 5, pp. 315-324.

ADELOWO, C., AKINWALE, Y. & OLAOPA, R., O. 2017. Innovation and knowledge transfer in Nigeria. *International Journal of Research, Innovation and Commercialisation*, vol. 1, no. 1, pp 57-73.

<https://www.inderscienceonline.com/doi/abs/10.1504/IJRIC.2017.082298>

ADEDIRAN, Y., OPADIJI, J., FARUK, N. & BELLO, O. 2016. On issues and Challenges of Rural Telecommunications Access in Nigeria. *African Journal of Education, Science and Technology*, vol. 3, no. 2, pp. 16-26.

ADEDOKUN, M.O., ADEYEMO, C.W. & AGBOOLA, B.G., 2018. *The Role of Adult Education in Sustaining Cities and Communities through Innovative Technology in Nigeria*. Paper presented at the American Association for Adult and Continuing

Education (AAACE) 67th Annual Conference. Commission for International Adult Education.

ADEKUNLE, D.T. & CHRISTIANA, O.O., 2016. The Effects of School Feeding Programme on Enrolment and Performance of Public Elementary School Pupils in Osun State, Nigeria. *World Journal of Education*, vol. 6, no. 3, pp. 39-47.

ADERINOYE, R. 2008. Nigeria Non-formal education. *Country profile prepared for the Education for All Global Monitoring Report*. UNESCO 2008/ED/EFA/MRT/PI/3

ADERINOYE, R.A., OJOKHETA, K.O. & OLOJEDE, A.A., 2007. Integrating mobile learning into nomadic education programme in Nigeria: Issues and perspectives. *The International Review of Research in Open and Distributed Learning*, vol. 8, no. 2, pp. 1-17.

ADEPOJU, T., ADESINA, O., FAKINLE, B., OKEDERE, O. & SONIBARE, J. 2018. Estimation of Global Warming Agent from Road Transport System in Nigeria. *Petroleum & Coal*, vol. 60, no. 4, pp. 554-559.

ADEYEMI, B. A. & FALADE, D. A. 2015. Civic education in Nigeria's one hundred years of existence: problems and prospects. *Journal of Emerging Trends in Educational Research and Policy Studies*, vol. 6, no. 1, pp. 113-118.

ADEYINKA, F. & ALUKO, Y. 2018. Information and Communication Technologies (ICTs), Empowerment and Gender Equity. *Gender and Development in Nigeria: One Hundred Years of Nationhood*. Lexington Books, Maryland.

ADIBE, N. K., JUDE, N. C. & IJEOMA, N. J. 2017. One Country, Two Eras: Analysis of How Three Nigerian Newspapers Framed President Goodluck Jonathan and Muhammadu Buhari's Economic Policies. *The Nigerian Journal of Communication (TNJC)*, 14.

ADICHIE, C.N., 2014. *We should all be feminists*. Vintage, UK

AGBOTI, C., A. & NNAM, M. 2018. An assessment of the relationship between crime and social exclusion in Nigeria. *International Journal of Research in Arts and Social Sciences*, vol. 8, no. 1, pp. 157-164

- AGUIAR, M. & HURST, E., 2007. Measuring trends in leisure: The allocation of time over five decades. *The Quarterly Journal of Economics*, vol. 122, no. 3, pp. 969-1006.
- AGWU, E. & CARTER, A.-L. 2014. Mobile phone banking in Nigeria: benefits, problems and prospects. *International Journal of Business and Commerce*, vol. 3, no. 6, pp. 50-70.
- AGWU, E. & MURRAY, P.J., 2015. Empirical study of barriers to electronic commerce adoption by Small and Medium scale businesses in Nigeria. *International Journal of Innovation in the Digital Economy*, vol. 6, no. 2, pp. 1-19.
- AHMED, M. & IQBAL, K. 2016. Is There any Threshold in the Relationship Between Mother's Education and Child Health? Evidence from Nigeria. *The Developing Economies*, vol. 54, no. 3, pp. 243-256.
- AJADI, T. O., SALAWU, I. O. & ADEOYE, F. A. 2008. ELearning and distance education in Nigeria. *The Turkish Online Journal of Educational Technology*, vol. 7, no. 4, article 7.
- AJA-OKORIE, U. 2013. Women education in Nigeria: Problems and implications for family role and stability. *European Scientific Journal*, vol. 9, no. 28, pp. 272-282.
- AJAERO, C. K., ODIMEGWU, C., AJAERO, I. D. & NWACHUKWU, C. A. 2016. Access to mass media messages and use of family planning in Nigeria: a spatio-demographic analysis from the 2013 DHS. *BMC public health*, vol. 16, no. 427, pp. 1-10.
- AKAR, S. & ERDOGDU, M. M. 2018. Education and health externalities of Syrian refugees in Turkey: threats and opportunities. *ICE, Revista de Economía*.
- AKEMU, O. & ABDELNOUR, S. 2018. Confronting the Digital: Doing Ethnography in Modern Organizational Settings. *Organizational Research Methods*, <https://doi.org/10.1177/1094428118791018>
- AKER, J. C., KSOLL, C. & LYBBERT, T. J. 2012. Can Mobile Phones Improve Learning? Evidence from a Field Experiment in Niger. *American Economic Journal: Applied Economics*, vol. 4, no. 4, pp. 94-120.

- AKHIMIEN, N., ADAMOLEKUN, M. & ISIWELE, A. J. 2017. *An overview of rural and community development in Nigeria*, viewed 22 January 2019.
https://www.researchgate.net/profile/Noah_Akhimien/publication/328074762_An_overview_of_rural_and_community_development_in_Nigeria/links/5bb6255692851c192d0d4e04/An-overview-of-rural-and-community-development-in-Nigeria.pdf
- AKINBI, J. O. & AKINBI, Y. A. 2015. Gender disparity in enrolment into basic formal education in Nigeria: implications for national development. *African Research Review*, vol. 9, no. 3, pp. 11-23.
- AKINOLA, A. O. 2018. Women, Culture and Africa's Land Reform Agenda. *Frontiers in Psychology*, vol. 9, pp. 2234.
- AKINPELU, J. 1988. *Introduction to philosophy of adult education*. Ibadan Department of Adult Education University of Ibadan, External Studies series.
- AKOMOLAFE, C. O. & ADEGUN, O. A. 2013. *Promoting ICT Opportunities for Women Empowerment in Nigeria: Issues and Strategies*. COL Pan Commonwealth forum on open learning, viewed 09 January 2019
Online@pcf7papers.colfinder.org/handle/123456789/1
- AL-ADWAN, A., AL-ASDWAN, A. & SMEDLEY, J., 2013. Exploring students acceptance of e-learning using Technology Acceptance Model in Jordanian universities. *International Journal of Education and Development using ICT*, vol. 9, no. 2, pp. 4-18.
- ALABI, M., RAHEEM, W. M. & BAKO, A. I. 2018. A Review of National Policies, Programmes and Initiatives on Sustainable Urban Development in Nigeria. *KIU Journal of Social Sciences*, vol. 4, no. 1, pp. 7-19.
- ALAVI, S. 2015. Netnography: An Internet-Optimized Ethnographic Research Technique. *Market Research Methodologies: Multi-Method and Qualitative Approaches*. IGI Global.
- ALDASHEV, G. & NAVARRA, C. 2018. Development NGO's: Basic facts. *Annals of Public and Cooperative Economics*, vol. 89, no. 1, pp. 125-155.

ALEXANDER, A. C. & WELZEL, C. 2015. Eroding patriarchy: the co-evolution of women's rights and emancipative values. *International Review of Sociology*, vol. 25, no. 1, pp. 144-165.

ALHOJAILAN, M.I., 2012. Thematic analysis: A critical review of its process and evaluation. *West East Journal of Social Sciences*, vol. 1, no. 1, pp. 39-47.

ALI, M. A. & SALISU, Y. 2019. Women Entrepreneurship and Empowerment Strategy for National Development, *Journal of Economics, Management and Trade*, vol. 22, no. 3, pp. 1-13.

ALI, S. & KHAWAJA, M. Z. 2017. Barriers to Girl Education in Walled City, Lahore, In Scatolini, S. (Ed.), *Including the Other: Acknowledging the other in education, language and history*, 107-123. EuroKhaleeji Research and Publishing House, Oman

ALLEN, A. 2018. *The power of feminist theory: Domination, resistance, solidarity*, Taylor and Francis, pp. 1-9 viewed 10 April 2019 <https://doi.org/10.4324/9780429495939>

ALLEN, B.J. 2017. Standpoint Theory. In Y.Y. Kim (Ed.), *The International Encyclopedia of Intercultural Communication*, 1-9. WILEY Blackwell, Hoboken, NJ.

ALSOP, R. & HEINSOHN, N. 2005. *Measuring empowerment in practice: Structuring analysis and framing indicators*, The World Bank viewed 10 October 2018 https://papers.ssrn.com/sol3/papers.cfm?abstract_id=665062

ALUKO, Y. A. 2015. Patriarchy and property rights among Yoruba women in Nigeria. *Feminist Economics*, vol. 21, no. 3, pp. 56-81.

ALUKO, Y. A. & OKUWA, O. B. 2018. Innovative solutions and women empowerment: Implications for sustainable development goals in Nigeria. *African Journal of Science, Technology, Innovation and Development*, vol. 10, no. 4, pp. 441-449.

ALVERMANN, D. E., & SANDERS, R. K. 2019. Adolescent literacy in a digital world.

In R. Hobbs & P. Mihailidis (Eds.), *The international encyclopedia of media literacy* vol. 1, no. 19–24, pp. 1-6. WILEY Blackwell, Hoboken, NJ.

- ALVESSON, M. & SKÖLDBERG, K. 2017. *Reflexive methodology: New vistas for qualitative research*, Sage, London.
- ALWRAIKAT, M. A. 2017. Smartphones as a new paradigm in higher education overcoming obstacles. *International Journal of Interactive Mobile Technologies*, vol. 11, no. 4, pp. 114-135.
- AMADIUME, I. 2015. *Male daughters, female husbands: Gender and sex in an African society*, Zed Books, London.
- AMAKIRI, A. & IGANI, B. 2015. Confronting the Challenges in the Education Sector in Nigeria. *IOSR Journal of Research & Method in Education*, vol. 5, no. 4, pp. 37-43.
- AMASIORAH, I., 2018. *The Anatomy of Ethnoreligious Violence in Nigeria: Religious Education as a Second Language of Religious Encounter in the Practice of Revelation*. Doctoral dissertation, Fordham University.
- AMODU, O., DOKBISA, P., L. & AHMED, R., S. 2016. Education of the Special Target Groups: A Panacea for Achieving the Transformation Agenda in Nigeria. *Asia Pacific Journal of Education, Arts and Sciences*, vol. 3, no. 1, pp. 27-30.
- AMUSAN, L. & AKOKUWEBE, M. E. 2016. Conceptualising Afrocentric-feminism and social constructivism through Alma Ata Declaration (primary health care, PHC) in rural Nigeria. *Gender and Behaviour*, vol. 14, no. 2, pp. 7246-7253.
- ANDERSON, H. S. 2016. Feminisms in Canadian Educational Contexts: A Literature Review. *Canadian Journal for New Scholars in Education/Revue Canadienne des Jeunes chercheures et chercheurs en éducation*, vol. 7, no. 2, pp. 37-46.
- ANDERSON-LEVITT, K. M. 2006. *Ethnography: Handbook of complementary methods in education research*. Routledge, London, pp. 279-296.
- ANGROSINO, M. 2007. *Doing ethnographic and observational research*, Sage, London.
- ANSHARI, M., ALAS, Y. & GUAN, L. S. 2016. Developing online learning resources: Big data, social networks, and cloud computing to support pervasive knowledge. *Education*

and Information Technologies, vol. 21, no. 6, pp. 1663-1677.

ANTWI, S.K. & HAMZA, K., 2015. Qualitative and quantitative research paradigms in business research: A philosophical reflection. *European journal of business and management*, vol. 7, no. 3, pp. 217-225.

ANYANWU, C., 2019. Digital Divide or Information Divide. In Mutsvairo, B. and Ragnedda, M. (Eds.), 2019. *Mapping the Digital Divide in Africa: A Mediated Analysis*. Amsterdam University Press. Chapter 9

ARCHIBONG, B. 2018. Historical origins of persistent inequality in Nigeria. *Oxford Development Studies*, vol. 46, no. 3, pp. 325-347.

AROGÉ, S. T. 2016. Socio-Economic Effects of Women's Participation in Adult and Non Formal Education: Case of Akoko North West Local Government Area of Ondo State, Nigeria. *Journal of Advances in Humanities*, vol. 4, no. 3, pp. 520-524.

ARIYA, D., OGUNDELE, M. O., ABIODUN, D. Y. & SALEH, S. 2015. The role of information and communication technologies, in adult education and non-formal education for national development in Nigeria. *Asia Pacific Journal of Education, Arts and Sciences*, vol. 2, no. 1, pp. 31-36.

ARMSTRONG, C. & BUTCHER, C. 2018. Digital civil society: How Nigerian NGOs utilize social media platforms. *International Journal of Politics, Culture, and Society*, vol. 31, no. 3, pp. 251-273.

ASADULLAH, M. A. & ZAFAR U., A. 2018. Social-economic contribution of vocational education and training: an evidence from OECD countries. *Industrial and Commercial Training*, vol. 50, pp. 172-184.

ASIYAI, R. I. 2015. Empowering rural women for poverty reduction via well-managed education and social support: A case study of Owa communities in Nigeria. *International Journal of Gender Studies in Developing Societies*, vol. 1, no. 2, pp. 107-118.

ATKINSON, P. 2014. *The ethnographic imagination: Textual constructions of reality*,

Routledge, London.

ATKINSON, P. & PUGSLEY, L. 2005. Making sense of ethnography and medical education. *Medical education*, vol. 39, no. 2, pp. 228-234.

BABALOLA, A.C., 2018. An Appraisal of Women Empowerment Programmes by Adult Education Departments in Two Local Government Areas in Osun State, Nigeria. *Voices in Education*, vol. 4, pp. 31-37.

BABALOLA, S. 2018. Inequalities within Nigeria's Education System: A Focus on Secondary Schools in Lagos, Ondo State and Ogun State. Paper presented at the Annual International Conference of the Bulgarian Comparative Education Society (BCES) (16th, Golden Sands, Varna, Bulgaria, June 2018).

BADEJO, A. F., MAJEKODUNMI, A. O., KINGSLEY, P., SMITH, J. & WELBURN, S. C. 2017. The impact of self-help groups on pastoral women's empowerment and agency: A study in Nigeria. *Pastoralism*, vol. 7, no. 1, pp. 1-12. DOI: 10.1186/s13570-017-0101-5

BADRAN, M. 2018. Bridging the gender digital divide in the Arab Region. *The Future of Work in the Global South*, 34-39. Viewed on 28 march 2019
<https://fowigs.net/bridging-the-gender-digital-divide-in-the-arab-region/>

BAIG, P. A. 2016. *Determinants and effects of informal institutions in the context of transition*. Doctoral Thesis, UCL (University College London).

BAILEY, L. W. 2019. New Technology for the Classroom: Mobile Devices, Artificial Intelligence, Tutoring Systems, and Robotics. *Educational Technology and the New World of Persistent Learning*. IGI Global, chapter 1.

BAILEY, A., HENNINK, M., & HUTTER, I. 2011. *Qualitative Research Methods*. Sage.

BAILUR, S. & MASIERO, S., 2017. Women's income generation through mobile Internet: A study of focus group data from Ghana, Kenya, and Uganda. *Gender, Technology and Development*, vol. 21, no. 1-2, pp. 77-98.

BAILUR, S., MASIERO, S. & TACCHI, J. 2018. Gender, Mobile, and Mobile Internet |

Gender, Mobile, and Development: The Theory and Practice of Empowerment— Introduction. *Information Technologies & International Development*, (Special Section), vol. 14, 96–104.

BAKARE, A.S., 2011. The crowding-out effects of corruption in Nigeria: An empirical study. *Journal of Business Management and Economics*, vol. 2, no. 2, pp. 59-68.

BAKO, M. J. & SYED, J. 2018. Women’s marginalization in Nigeria and the way forward. *Human Resource Development International*, vol. 21, no. 5, pp. 425-443.

BALLANTINE, J. H., HAMMACK, F. M. & STUBER, J. 2017. *The sociology of education: A systematic analysis*, Routledge, London.

BANAJI, S., LIVINGSTONE, S., NANDI, A. & STOILOVA, M., 2018. Instrumentalising the digital: findings from a rapid evidence review of development interventions to support adolescents’ engagement with ICTs in low and middle income countries. *Development in Practice*, vol. 28, no. 3, pp. 432-443.

BANKS, N., HULME, D. & EDWARDS, M. 2015. NGOs, States, and Donors Revisited: Still Too Close for Comfort? *World Development*, vol. 66, pp. 707-718.

BARDZELL, S. & BARDZELL, J., 2011. Towards a feminist HCI methodology: social science, feminism, and HCI. In CHI:’11 *Proceedings of the SIGCHI conference on human factors in computing systems*, pp. 675-684.

BARRETT, C. B., GARG, T. & MCBRIDE, L. 2016. Well-being dynamics and poverty traps. *Annual Review of Resource Economics*, vol. 8, pp. 303-327.

BARTOLOMÉ, A., CASTAÑEDA, L. & ADELL, J. 2018. Personalisation in educational technology: the absence of underlying pedagogies. *International Journal of Educational Technology in Higher Education*, vol. 15, no. 1, article 14.

BARSH, J. & YEE, L., 2011. Unlocking the full potential of women in the US economy. *McKinsey & Company*, viewed 30 November 2018

<https://www.mckinsey.com/business-functions/organization/our-insights/unlocking-the-full-potential-of-women>

BATEMAN, M., BLANKENBURG, S. & KOZUL-WRIGHT, R. 2018. *The rise and fall of global microcredit: development, debt and disillusion*. Routledge, London.

BATLIWALA, S., 1993. *Empowerment of women in South Asia*. Asian-South Pacific Bureau of Adult Education and FAO's Freedom from Hunger campaign/Action for Development, New Delhi.

BAYEH, E., 2016. The role of empowering women and achieving gender equality to the sustainable development of Ethiopia. *Pacific Science Review B: Humanities and Social Sciences*, vol. 2, no. 1, pp. 37-42.

BAYISSA, F. W., SMITS, J. & RUBEN, R. 2018. The Multidimensional Nature of Women's Empowerment: Beyond the Economic Approach. *Journal of International Development*, vol. 30 no. 4, pp. 661-690.

BEAUD, S. 2018. The Use of Interviews in the Social Sciences. In Defence of the "Ethnographic Interview". *Colombian Journal of Anthropology*, vol. 54 no. 1, pp. 175-218.

BEEBEEJAUN, Y. 2017. Gender, urban space, and the right to everyday life. *Journal of Urban Affairs*, vol. 39, no. 3, pp. 323-334.

BEISHEIM, M., ELLERSIEK, A. & LORCH, J. 2018. *INGOs and multi-stakeholder partnerships. The Oxford Handbook of Governance and Limited Statehood*, Oxford University Press, Oxford.

BENDELL, J. 2017. *Terms for endearment: Business, NGOs and sustainable development*, Routledge, London.

BENDER, S. & HILL, K. 2016. Pedagogical Considerations for Effectively Teaching Qualitative Research to Students in an Online Environment. *Journal of Effective Teaching*, vol. 16, no. 2, pp. 93-103.

BERGHMANS, M., SIMONS, M. & VANDENABEELE, J. 2017. What is Negotiated in Negotiated Accountability? The Case of INGOS. *VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations*, vol. 28, no. 4, pp. 1529-1561.

BERTI, M. 2018. Open Educational Resources in Higher Education. *Issues and Trends in Educational Technology*, vol. 6, no. 1, pp. 4-15.

<https://journals.uair.arizona.edu/index.php/itet/article/view/22934>

BHANDARI, A. 2019. Gender inequality in mobile technology access: the role of economic and social development. *Information, Communication & Society*, vol. 22, no. 5, pp. 678-694.

BLAU, P. 2017. *Exchange and power in social life*, 2nd ed. ebook, Routledge, London.

BLOMBERG, J., GIACOMI, J., MOSHER, A. & SWENTON-WALL, P. 2017. Ethnographic field methods and their relation to design. *Participatory Design*. CRC Press, Boca Raton, pp. 123-155.

BOATENG, A. 2018. Contextualising Women's Entrepreneurship in Africa. *African Female Entrepreneurship*. Palgrave Macmillan, London, pp 3-33

BOEHMER, E. 2017. *Stories of women; Gender and narrative in the post-colonial nation*. Manchester University Press, Manchester.

BOLANLE, B. M., ABDULRAHEEM, Y. & ISMAIL, A. O. 2019. Perception of economics undergraduate on non-usage of university's ICT platform in teaching economics in university of Ilorin. *Epiphany*, vol. 11, no. 1, pp. 75-94.

BOYATZIS, R. E. 1998. *Transforming qualitative information: Thematic analysis and code development*, Sage, Thousand Oaks.

BOYD, R. & RICHERSON, P. J. 2009. Culture and the evolution of human cooperation. *Philosophical Transactions of the Royal Society B: Biological Sciences*, vol. 364, no. 1533, pp. 3281-3288.

BRAUN, V., & CLARKE, V. 2006. Using thematic analysis in psychology. *Qualitative research in Psychology*, vol. 3, no. 2, pp. 77-101.

BRAUN, V., CLARKE, V. & WEATE, P. 2016. Using thematic analysis in sport and exercise research. *Routledge Handbook of Qualitative Research in Sport and Exercise*.

Routledge, London, pp. 191-218.

BRETT, P., 2011. Students' experiences and engagement with SMS for learning in higher education. *Innovations in Education and Teaching International*, vol. 48, no. 2, pp. 137-147.

BRIKEN, K., CHILLAS, S. & KRZYWDZINSKI, M. 2017. *The new digital workplace: How new technologies revolutionise work*, Macmillan International Higher Education, London.

BRIONES, R.L., KUCH, B., LIU, B.F. & JIN, Y., 2011. Keeping up with the digital age: How the American Red Cross uses social media to build relationships. *Public Relations Review*, vol. 37, no. 1, pp. 37-43.

BRITISH COUNCIL. 2012. Gender in Nigeria report 2012. *Improving the Lives of Girl and Women in Nigeria: Issues, Policies, Action*. 2nd ed. Viewed 30 May 2017 <https://www.britishcouncil.org/sites/default/files/british-council-gender-nigeria2012.pdf>

BRIZ-PONCE, L., PEREIRA, A., CARVALHO, L., JUANES-MÉNDEZ, J. A. & GARCÍA-PEÑALVO, F. J. 2017. Learning with mobile technologies – Students' behavior. *Computers in Human Behavior*, vol. 72, pp. 612-620.

BROOKS, A. 2007. Feminist standpoint epistemology: Building knowledge and empowerment through women's lived experience. In Hesse-Biber, S. N., & Leavy, P. L. *Feminist research practice*. SAGE, Thousand Oaks, pp. 53-82.

BUBA, A., ABDU, M., ADAMU, I. & JIBIR, A. 2018. Socio-Demographic Determinants of Poverty in Nigeria and its Gender Differentials. *European Scientific Journal, ESJ*, vol. 14, no. 14, pp. 236-253.

BUDGEON, S. 2015. Individualized femininity and feminist politics of choice. *European Journal of Women's Studies*, vol. 22, no. 3, pp. 303-318.

- BUSKENS, I. 2010. Agency and reflexivity in ICT4D research: Questioning women's options, poverty, and human development. *Information Technologies & International Development*, vol. 6(Special Edition), pp. 19-24.
- BUZZETTO-HOLLYWOOD, N., ELOBAID, M. & ELOBEID, M. 2018. Addressing Information Literacy and the Digital Divide in Higher Education. *Interdisciplinary Journal of ELearning and Learning Objects*, vol. 14, pp. 77-93.
- CALVÈS, A.-E. 2009. Empowerment: The History of a Key Concept in Contemporary Development Discourse. *Revue Tiers Monde*, vol. 2009/4, no. 200, pp. 735-749.
- CAMPBELL, C. & MANNELL, J., 2016. Conceptualising the agency of highly marginalised women: Intimate partner violence in extreme settings. *Global public health*, vol. 11no. 1-2, pp. 1-16.
- CANNING, N. & CALLAN, S. 2010. Heutagogy: Spirals of reflection to empower learners in higher education. *Reflective Practice*, vol. 11, no. 1, pp. 71-82.
- CARMINATI, L. 2018. Generalizability in qualitative research: A tale of two traditions. *Qualitative health research*, vol. 28, no. 13, pp. 2094-2101.
- CARNEY, M. & INDRISANO, R., 2013. Disciplinary literacy and pedagogical content knowledge. *Journal of Education*, vol. 193, no. 3, pp. 39-49.
- CARR, A. M., TENYWA, M. & BALASUBRAMANIAN, K. 2015. From Learning to Empowerment: A Study of Smallholder Farmers in South West Uganda. *Journal of Learning for Development*, vol. 2, no. 3, pp. 1-15.
- CASSELL, C. & SYMON, G. 1994. Qualitative research in work contexts. In C. Cassell & G. Symon (eds), *Qualitative methods in organizational research*, Sage, London, pp. 1-13.
- CASTELLS, M., 2000. Information technology and global capitalism. In W. Hutton & A. Giddens (eds), *On the edge: Living with global capitalism*, Jonathan Cape, London, pp. 52-74.

CEDAW 2017. General recommendation No. 36 (2017) on the right of girls and women to education, viewed 22 January 2019.

<https://tbinternet.ohchr.org/Treaties/CEDAW/Shared%20Documents/1_Global/CEDAW_C_GC_36_8422_E.pdf>

CHANG, C.Y. & HWANG, G.J., 2019. Trends in digital game-based learning in the mobile era: a systematic review of journal publications from 2007 to 2016. *International Journal of Mobile Learning and Organisation*, vol. 13, no. 1, pp. 68-90.

CHANG, V. 2016. Review and discussion: ELearning for academia and industry. *International Journal of Information Management*, vol. 36, no. 3, pp. 476-485.

CHARMAZ, K. & BELGRAVE, L. 2012. Qualitative interviewing and grounded theory analysis. *The SAGE handbook of interview research: The complexity of the craft*, Sage, Thousand Oaks, pp. 347-365.

CHERUVALATH, R. 2018. Engineering, technology and science disciplines and gender difference: a case study among Indian students. *European Journal of Engineering Education*, vol. 43, no. 1, pp. 99-111.

CHIGBU, U. E. 2019. Masculinity, men and patriarchal issues aside: How do women's actions impede women's access to land? Matters arising from a peri-rural community in Nigeria. *Land Use Policy*, vol. 81, pp. 39-48.

CHISALE, S. S. 2017. Patriarchy and resistance: a feminist symbolic interactionist perspective of highly educated married black women. PhD Thesis, University of South Africa, Pretoria.

CHOPRA, D. & MÜLLER, C. 2016. Connecting perspectives on women's empowerment. *IDS Bulletin*, vol. 47, no. 1A, pp. 1-7.

CHOUDHARY, A.S., 2015. Economic Empowerment of Rural Women Entrepreneurs in Rajasthan through Self-help Group: A Case of SAKHI. *Advances in Economics and Business Management*, vol. 2, no. 3, pp. 287-292.

CHRISTIANAH, B.-A. O. 2018. A discursive discourse on the tragic delimits in the

development of post-independence Africa, twentieth century to twenty-first century. *African Journal of Governance and Development*, vol. 7, no. 1, pp. 17-33.

CHUKU, G. 2018. Colonialism and African Womanhood. In: SHANGUHYIA, M. S. & FALOLA, T. ed. 2018. *The Palgrave Handbook of African Colonial and Postcolonial History*. Palgrave Macmillan, New York.

CHUKWUJI, C. N., TSAFE, A. G., SULE, S., YUSUF, Z. & ZAKARRIYA, J. A. 2018. Awareness, Access and Utilization of Family Planning Information in Zamfara State, Nigeria. *Library Philosophy and Practice*, (ejournal), viewed 20 June 2019
https://digitalcommons.unl.edu/libphilprac/1771?utm_source=digitalcommons.unl.edu%2Flibphilprac%2F1771&utm_medium=PDF&utm_campaign=PDFCoverPages.

CHUN, D. M. 2015. Language and culture learning in higher education via tele collaboration. *Pedagogies: An International Journal*, vol. 10, no. 1, pp. 5-21.

CHURCHILL, D., PEGRUM, M. & CHURCHILL, N. 2018. The Implementation of Mobile Learning in Asia: Key Trends in Practices and Research. In: VOOGT, J., KNEZEK, G., CHRISTENSEN, R. & LAI, K.-W. (eds.) *Second Handbook of Information Technology in Primary and Secondary Education*. Cham: Springer, pp. 817-857.

ÇIFTÇI, E. Y. 2016. A review of research on intercultural learning through computer-based digital technologies. *Journal of Educational Technology & Society*, 19, 313-327.

CIOLFI, L., DAMALA, A., HORNECKER, E., LECHNER, M. & MAYE, L. 2017. *Cultural heritage communities: technologies and challenges*, Routledge, London.

CLARK, R. C. & MAYER, R. E. 2016. *E-Learning and the science of instruction: Proven guidelines for consumers and designers of multimedia learning*, John Wiley, Hoboken, NJ.

CLARKE, V., BRAUN, V., TERRY, G & HAYFIELD N. 2019. Thematic analysis. In Liamputtong, P. (Ed.), *Handbook of research methods in health and social sciences*. Springer, Singapore, pp. 843-860.

- CLOUGH, G., JONES, A.C., MCANDREW, P. & SCANLON, E., 2008. Informal learning with PDAs and smartphones. *Journal of computer assisted learning*, 24(5), 359-371.
- COHEN, L., MANION, L. & MORRISON, K. 2011. Coding and content analysis. *Research methods in education*, 7th ed. Routledge, London, pp. 559-573.
- COLLINS, A. & HALVERSON, R. 2018. *Rethinking education in the age of technology: The digital revolution and schooling in America*, Teachers College Press, New York.
- CONLEY, S. N. 2017. Assessing the Societal Implications of Emerging Technologies: Anticipatory Governance in Practice. *Science and Public Policy*, vol. 44, no. 6, pp. 877-879.
- COQUERY-VIDROVITCH, C. 2018. *African women: A modern history*, Routledge, New York.
- CORDIE, L., WITTE, M. M. & WITTE, J. E. 2018. Using Blended Learning and Emerging Technologies to Transform the Adult Learning Experience. *Online Course Management: Concepts, Methodologies, Tools, and Applications*. IGI Global.
- CORNWALL, A. 2016. Women's empowerment: What works? *Journal of International Development*, vol. 28, no. 3, pp. 342-359.
- COSTELLO, L., MCDERMOTT, M.-L. & WALLACE, R. 2017. Netnography: range of practices, misperceptions, and missed opportunities. *International Journal of Qualitative Methods*, vol. 16, no. 1, DOI: 10.1177/1609406917700647.
- CRABTREE, B. F. & MILLER, W. L. 1999. *Doing qualitative research*, 2nd ed. Sage, Thousand Oaks.
- CREIGHTON, C. & OMARI, C. K. 2018. *Gender, family and work in Tanzania*, Routledge, London .
- CRESWELL, J. W. 2007. *Educational research: Planning, conducting, and evaluating quantitative and qualitative research*. 4th ed. Pearson, Boston.

- CRESWELL, J. W. & POTH, C. N. 2017. *Qualitative inquiry and research design: Choosing among five approaches*, 4th ed. Sage, Thousand Oaks.
- CRUZ-JESUS, F., OLIVEIRA, T. & BACAO, F. 2018. The global digital divide: evidence and drivers. *Journal of Global Information Management*, vol. 26, no. 2, pp. 1-26.
- CUSUMANO, E. 2019. Straightjacketing migrant rescuers? The code of conduct on maritime NGOs. *Mediterranean Politics*, vol. 24, no. 1, pp. 106-114.
- DA COL, G. 2017. Two or three things I know about Ethnographic Theory. *HAU: Journal of Ethnographic Theory*, vol. 7, no. 1, pp. 1-8.
- DALY, J., KELLEHEAR, A., GLIKSMAN, M. & DALY, K. G. 1997. *The public health researcher: A methodological guide*, Oxford University Press, Melbourne.
- DANIELE, L. 2017. Discourses on Empowerment in Adult Learning: A View on Renewed Learning. *IAFOR Journal of Education*, vol. 5, no. 2, pp. 49-64.
- DANIEL-KALIO, B. 2018. Historical Analysis of Educational Policies in Nigeria: Trends and Implications. *International Journal of Scientific Research in Education*, vol. 11, no. 2, pp. 247-264.
- DANJUMA, K. J., ONIMODE, B. M. & ONCHE, O. J. 2015. Gender Issues & Information Communication Technology for Development (ICT4D): Prospects and Challenges for Women in Nigeria. *IJCSI International Journal of Computer Science Issues*, vol. 12, no. 2. <https://arxiv.org/ftp/arxiv/papers/1504/1504.04644.pdf>
- DARKENWALD, G. G. & MERRIAM, S. B. 1982. *Adult education: Foundations of practice*, T. Y. Crowell, New York.
- DASUKI, S. I., ABBOTT, P. & AZERIKATOA, D. 2013. ICT and empowerment to participate: a capability approach. *Information Development*, vol. 30, no.4, pp. 321-331.
- DAUDA, R.O., 2007. Female education and Nigeria's development strategies: lots of talk, little action? *Indian Journal of Gender Studies*, vol. 14, no. 3, pp.461-479.

- DAURA, A. H. & AUDU, A. R. 2015. Challenges of the implementation of the universal basic education programme in Yobe state, Nigeria and the prospects for 2015 and beyond. *Global Journal of Politics and Law Research*, vol. 3, no. 3, pp. 72-95.
- DAVID, M. 2015. Women and gender equality in higher education? *Education Sciences*, vol. 5, no. 1, pp. 10-25.
- DAY, C., GU, Q. & SAMMONS, P. 2016. The impact of leadership on student outcomes: How successful school leaders use transformational and instructional strategies to make a difference. *Educational Administration Quarterly*, vol. 52, no. 2, pp. 221-258.
- DEKESEREDY, W. S., HALL-SANCHEZ, A., DRAGIEWICZ, M. & RENNISON, C. M. 2016. Intimate violence against women in rural communities. In DONNERMEYER, J.F. (ed) *The Routledge international handbook of rural criminology*, Routledge, London, pp. 171-179.
- DENZIN, N. K. & LINCOLN, Y. S. 2000. The discipline and practice of qualitative research. *Handbook of qualitative research*, 2nd ed., Sage, Thousand Oaks, pp. 1-28.
- DENZIN, N. K. & LINCOLN, Y. S. 2005. *The Sage handbook of qualitative research*, 3rd ed. Sage, Thousand Oaks.
- DESTA, T. 2018. Comments on the Digitalization and Digital Divide in the Horn of Africa (HoA), Kenya and Ethiopia: The Media Perspective. *Global Media Journal*, vol. 16, no. 30, pp. 1-7.
- DHOLAKIA, N. & ZHANG, D. 2004. Online qualitative research in the age of e-commerce: data sources and approaches. 2004. Forum Qualitative Sozialforschung/Forum: Qualitative Social Research, vol. 5, no. 2, Article 29.
- DHONDT, S., OEIJ, P. & SCHRÖDER, A. 2018. *Resources, constraints and capabilities*, Dortmund: Sozialforschungsstelle, TU Dortmund University.
- DIBIE, R. 2018. *Public Management and Sustainable Development in Nigeria: Military–Bureaucracy Relationship*, Routledge, Abingdon.

DOLAN, J., 2001. Women in the executive branch: A review essay of their political impact and career opportunities. *Women & Politics*, vol. 22, no. 4, pp. 89-104.

DONNER, J. 2008. Research Approaches to Mobile Use in the Developing World: A Review of the Literature. *The Information Society*, vol. 24, no. 3, pp. 140-159.

DRORI, G.S., 2010. Globalization and technology divides: Bifurcation of policy between the “digital divide” and the “innovation divide”. *Sociological Inquiry*, vol. 80, no. 1, pp. 63-91.

DRURY, M. 2016. Still alone at the table? Women working in technology organizations. In CONNERLEY, M. and WU, J. (eds.) *Handbook on Well-Being of Working Women*. Springer, Dordrecht, pp. 297-315.

DUBOW, W. & PRUITT, A. 2017. The Comprehensive Case for Investing More VC Money in Women-Led Startups, *Harvard Business Review*, 18 September 2017, viewed 12 January 2019 <<https://hbr.org/2017/09/the-comprehensive-case-for-investing-more-vc-money-in-women-led-startups>>

DUKE, C. (ed) 2018. *Combatting poverty through adult education: National development strategies*, Routledge, London.

DUSSEL, I. 2018. Digital Technologies in the Classroom: A Global Educational Reform? In: HULTQVIST, E., LINDBLAD, S. & POPKEWITZ, T. S. (eds.) *Critical Analyses of Educational Reforms in an Era of Transnational Governance*. Cham: Springer, pp. 213-228.

DUTT, A., GRABE, S. & CASTRO, M. 2016. Exploring Links between Women's Business Ownership and Empowerment among Maasai Women in Tanzania. *Analyses of Social Issues and Public Policy*, vol. 16, no. 1, pp. 363-386.

DUTTON, W. H. & REISDORF, B. C. 2019. Cultural divides and digital inequalities: attitudes shaping Internet and social media divides. *Information, Communication & Society*, vol. 22, no. 1, pp. 18-38.

EAGLE, N. 2010. *SMS uprising: Mobile activism in Africa*, Fahamu/Pambazuka.

EASTIN, M.S. & LAROSE, R., 2000. Internet self-efficacy and the psychology of the digital divide. *Journal of computer-mediated communication*, vol. 6, no. 1, <https://doi.org/10.1111/j.1083-6101.2000.tb00110.x>

EGBEZOR, D. E. & OKANEZI, B. 2008. Non-formal education as a tool to human resource development: An assessment. *International journal of scientific research in education*, vol. 1, no. 1, pp. 26-40.

EJUKONEMU, J. A. 2018. Gender role in contemporary Nigerian society. *International Journal of Social Science and Economic Research*, vol. 3, no. 3, pp. 1087-1099. viewed 20 October 2018 < https://ijsser.org/2018files/ijsser_03__77.pdf>

ELKASEH, A. M., WONG, K. W. & FUNG, C. C. 2016. Perceived ease of use and perceived usefulness of social media for eLearning in Libyan higher education: A structural equation modeling analysis. *International Journal of Information and Education Technology*, vol. 6, no. 3, pp. 192-199.

ELLIOTT, L. J. 2019. The Digital Divide and Usability. *Critical Issues Impacting Science, Technology, Society (STS), and Our Future*. IGI Global, pp. 197-217.

ELLSBERG, M., ARANGO, D. J., MORTON, M., GENNARI, F., KIPLESUND, S., CONTRERAS, M. & WATTS, C. 2015. Prevention of violence against women and girls: what does the evidence say? *The Lancet*, vol. 385 no. 9977, pp. 1555-1566.

ELSBACH, K. & STIGLIANI, I. 2018. New information technology and implicit bias. *Academy of Management Perspectives*, vol. 33, no. 2, pp. 185- 206. <https://doi.org/10.5465/amp.2017.0079>

ENGLISH, L. 2016. *International encyclopedia of adult education*, Palgrave Macmillan.

ENIOLA, B. & AKINOLA, A. O. 2019. Cultural Practices and Women's Land Rights in Africa: South Africa and Nigeria in Comparison. In: AKINOLA, A. O. & WISSINK, H. (eds.) *Trajectory of Land Reform in Post-Colonial African States: The Quest for Sustainable Development and Utilization*. Springer International, Cham, pp. 109-124.

EPSTEIN, J. 2018. *School, Family, and Community Partnerships, Student Economy*

Edition: Preparing Educators and Improving Schools, Routledge, New York.

ERCIKAN, K., ASIL, M. & GROVER, R. 2018. Digital divide: A critical context for digitally based assessments. *Education policy analysis archives*, vol. 26, no. 51, pp. 1-23.
<http://dx.doi.org/10.14507/epaa.26.3817>

ERIKSSON, P. & KOVALAINEN, A. 2015. *Qualitative methods in business research: A practical guide to social research*, Sage, London.

ESSIEN, E. D. 2018. Ethical Implications of the Digital Divide and Social Exclusion: Imperative for Cyber-Security Culture in Africa. *International Journal of Innovation in the Digital Economy*, vol. 9, no. 1, pp. 14-25.

ETIKAN, I., MUSA, S. A. & ALKASSIM, R. S. 2016. Comparison of convenience sampling and purposive sampling. *American journal of theoretical and applied statistics*, vol. 5, no. 1, pp. 1-4.

ETOKIDEM, A., NDIFON, W., ETOWA, J. & ASUQUO, E. 2017. Family planning practices of rural community dwellers in cross river state, Nigeria. *Nigerian journal of clinical practice*, vol. 20, no. 6, pp. 707-715.

EVANS, A. 2014. 'Women Can Do What Men Can Do': The causes and consequences of growing flexibility in gender divisions of labour in Kitwe, Zambia. *Journal of Southern African Studies*, vol. 40, no. 5, pp. 981-998.

EWERLING, F., LYNCH, J. W., VICTORA, C. G., VAN EERDEWIJK, A., TYSZLER, M. & BARROS, A. J. D. 2017. The SWPER index for women's empowerment in Africa: development and validation of an index based on survey data. *The Lancet Global Health*, vol. 5, no. 9, pp. 916-923.

EWUZIE, R., 2012. Change in adult education in Nigeria. *An Article written to European Association for the Education of Adults*, viewed on 23 April 2017 <https://pt-br.facebook.com/311208528915502/posts/change-in-adult-education-in-nigeriawritten-by-christopher-ewuzie-international-/593583197344699/>

EZE, N. 2017. *Balancing Career and Family: The Nigerian Woman's Experience*. PhD Thesis, Walden University.

EZE, S. C., CHINEDU-EZE, V. C. & BELLO, A. O. 2018. The utilisation of eLearning facilities in the educational delivery system of Nigeria: a study of M-University. *International Journal of Educational Technology in Higher Education*, vol. 15, no. 1, pp 1-20.

EZEANYA, S. A. 2015. Democratization of education in Nigeria: Challenges and the way forward. *International Journal of Education and Evaluation*, vol. 1, no. 8, pp. 15-22.

FAFUNWA, A. B. 1974. *History of education in Nigeria*, Macmillan, London.

FAIMAU, G. & BEHRENS, C., 2019. The Use of the Qualitative Approach and Digital Ethnography in the Study of Religion and New Media: Reflections from Research Fieldwork in Botswana. *Botswana Notes and Records*, vol. 51, pp. 64-77.

FALANA, F. T. 2015. *Prospects and Challenges Of E-Learning in Nigerian University Education Using National Open University of Nigeria Akure Study Center Akoko*. Bachelor's Degree Project, Department of Science and Technical Education (Computer Education Unit) Adekunle Ajasin University Akungba Akoko.

FANELLI, C. & POTTER, G. 2018. 'A Work for the World and for Us'. *Alternate Routes: A Journal of Critical Social Research*, vol. 29, pp. 6-13.

FASEUN, F. & BELLO, A. O. 2017. Women in Leadership and Musical Authority in the Celestial Church of Christ. *EJOTMAS: Ekpoma Journal of Theatre and Media Arts*, vol. , no. 1, pp. 367-390.

FEDERAL MINISTRY OF EDUCATION n.d viewed on 22 April 2020 <
<http://education.gov.ng/> >

FEDERAL REPUBLIC OF NIGERIA, 1999. *Constitution of the Federal Republic of Nigeria*, Lagos, Federal Republic of Nigeria Official Gazette.

FEDERAL REPUBLIC OF NIGERIA. 1979. *The Constitution of Republic of Nigeria*, Federal

Ministry of Information, Lagos.

FEDERAL REPUBLIC OF NIGERIA, 2014. *National Policy on Education*, NERD Press, Lagos.

FETTERMAN, D. M. 1998. *Ethnography, Step by Step*. Sage, Thousand Oaks.

FINLAYSON, L., 2016. *An introduction to feminism*. Cambridge University Press, Cambridge.

FLAMMER, A. 2015. Self-Efficacy. In: WRIGHT, J. D. (ed.) *International Encyclopedia of the Social & Behavioral Sciences*, 2nd ed. Elsevier, Oxford, pp. 13812-13815.

FLETCHER, E., PANDE, R. & MOORE, C. M. T. 2017. Women and work in India: Descriptive evidence and a review of potential policies. *Harvard Kennedy School Working Paper No. RWP18-004*, viewed 21 November 2018
<<http://dx.doi.org/10.2139/ssrn.3116310>>

FLICK, U. 2013. Qualitative data, analysis, and design. *The SAGE handbook of qualitative data analysis*. Sage, Thousand Oaks.

FLICK, U. 2018. *An introduction to qualitative research*, 6th ed. Sage, London.

FOLARIN, S. F., OLANREWAJU, I. P. & AJAYI, M. L. Y. 2016. Cultural plurality, national integration and the security dilemma in Nigeria. *Covenant University Journal of Politics and International Affairs*, vol. 2 no. 1, pp. 81-92.

FOO, K. 2018. Examining the Role of NGOs in urban environmental governance. *Cities*, vol. 77, pp. 67-72.

FORENBACHER, I., HUSNJAK, S. & CVITIĆ, I. 2017. Exploring Digital Divide in Mobile Phone Ownership: Evidence from Nigeria. The 5th International Virtual Research Conference in Technical Disciplines (RCITD-2017). DOI: 10.18638/rcitd.2017.5.1.102

FREIRE, P. 1972. *Pedagogy of the Oppressed*. 1968. Trans. Myra Bergman Ramos. Herder and Herder, New York.

FRIEDERICI, N., OJANPERÄ, S. & GRAHAM, M. 2017. The Impact of Connectivity in Africa: Grand Visions and the Mirage of Inclusive Digital Development. *The Electronic Journal of Information Systems in Developing Countries*, vol. 79, no. 2, pp. 1-20.

FRIEDMANN, J., 1992. *Empowerment: The politics of alternative development*. Blackwell, Oxford.

GARDINER, R. A. & FULFER, K. 2017. Family matters: An Arendtian critique of organizational structures. *Gender, Work & Organization*, vol. 24, no. 5, pp. 506-518.

GEORGE, T., FAGBOHUN, M., OLONADE, O. & ADEROJU, R. 2018. Rethinking women's access to education: a panacea for sustainable development in Nigeria. Proceedings of EDULEARN18 Conference 2nd-4th July 2018, Palma, Mallorca, Spain, 9474-9480, viewed 13 January 2019

<https://pdfs.semanticscholar.org/9ae7/2ad0ac81d2dce0ada3cb8f330c800ad563df.pdf>

GHEBREGIORGIS, F. & MIHRETEAB, H. T. 2018. Determinants of Internet Use and Internet Penetration in Eritrea: Evidences from the City of Asmara. *Journal of Economics and Management Sciences*, vol. 1, no. 1, pp. 28-36.

GIGLER, B.-S. 2004. Including the Excluded-Can ICTs empower poor communities? Towards an alternative evaluation framework based on the capability approach. Paper for 4th International Conference on the Capability Approach 5-7 September, 2004 University of Pavia, Italy, viewed 23rd October 2018.

<http://www.its.caltech.edu/~e105/readings/ICT-poor.pdf>

GILLWALD, A., MILEK, A. & STORK, C. 2010. Towards Evidence-based ICT Policy and Regulation; Gender assessment of ICT access and usage in Africa, Policy Paper No.5, Research ICT Africa, viewed 6th December 2018.

https://researchictafrica.net/publications/Towards_Evidence-based_ICT_Policy_and_Regulation_-_Volume_1/RIA%20Policy%20Paper%20Vol%201%20Paper%205%20-%20Gender%20Assessment%20of%20ICT%20Access%20and%20Usage%20in%20Africa%202010.pdf

GLENN, E. N., CHANG, G. & FORCEY, L. R. 2016. *Mothering: Ideology, experience, and agency*, Routledge, New York.

GOEL, M. 2007. The importance of education, viewed on 3rd January 2018.

www.SearchWarp.com/swa230219.html

GOLDMAN, M. J., DAVIS, A. & LITTLE, J. 2016. Controlling land they call their own: access and women's empowerment in Northern Tanzania. *The Journal of Peasant Studies*, vol. 43, no. 4, pp. 777-797.

GOLTZ, S., BUCHE, M. W. & PATHAK, S. 2015. Political empowerment, rule of law, and women's entry into entrepreneurship. *Journal of Small Business Management*, vol. 53, no. 3, pp. 605-626.

GONCALVES, G., OLIVEIRA, T. & CRUZ-JESUS, F. 2018. Understanding individual-level digital divide: Evidence of an African country. *Computers in Human Behavior*, vol. 87, pp. 276-291.

GONZALES, A.L., MCCRORY CALARCO, J. & LYNCH, T., 2018. Technology problems and student achievement gaps: A validation and extension of the technology maintenance construct. *Communication Research*, <https://doi.org/10.1177/0093650218796366>

GRAY, T. J., GAINOUS, J. & WAGNER, K. M. 2017. Gender and the Digital Divide in Latin America. *Social Science Quarterly*, vol. 98, no. 1, pp. 326-340.

GREENBERG, J. & MACAULAY, M., 2009. NPO 2.0? Exploring the web presence of environmental nonprofit organizations in Canada. *Global Media Journal: Canadian Edition*, vol. 2, no. 1, pp. 63-88.

GRUSKY, D. B. 2018. *Social stratification: Class, race, and gender in sociological perspective*, 4th ed. Routledge, London.

GSMA INTELLIGENCE, 2017. Global Mobile Trends, viewed 23rd February 2019 <
<https://www.gsma.com/globalmobiletrends/>>

- GU, X., GU, F. & LAFFEY, J.M., 2011. Designing a mobile system for lifelong learning on the move. *Journal of Computer Assisted Learning*, vol. 27, no.3, pp. 204-215.
- GULATI, S. 2008. Technology-enhanced learning in developing nations: A review. *The International Review of Research in Open and Distributed Learning*, vol. 9, no. 1, pp. 1-16. <https://doi.org/10.19173/irrodl.v9i1.477>.
- GUO, S. 2015. The changing nature of adult education in the age of transnational migration: Toward a model of recognitive adult education. *New directions for adult and continuing education*, vol. 2015, no. 146, pp. 7-17.
- HABIBA, U., ALI, R. & ASHFAQ, A., 2016. From patriarchy to neopatriarchy: Experiences of women from Pakistan. *International Journal of Humanities and Social Science*, vol. 6, no. 3, pp. 212-221.
- HADI, R., WAHYUDIN, U., ARDIWINATA, J. S. & ABDU, W. J. 2015. Education and microfinance: an alternative approach to the empowerment of the poor people in Indonesia. *Springer Plus*, vol. 4, no. 4, pp. 1-9.
- HAGGERTY, K. D. 2004. Ethics creep: Governing social science research in the name of ethics. *Qualitative sociology*, vol. 27, no. 4, pp. 391-414.
- HAGUE, C. & WILLIAMSON, B. 2009. *Digital participation, digital literacy, and school subjects: A review of the policies, literature and evidence*, Futurelab, Bristol. <https://www.nfer.ac.uk/publications/futl06/futl06.pdf>
- HAMMERSLEY, M. 2016. *Reading ethnographic research*, 2nd ed. Routledge, London.
- HAMMERSLEY, M. 2018. What is ethnography? Can it survive? Should it? *Ethnography and Education*, vol. 13, no. 1, pp. 1-17.
- HANCOCK, D. R. & ALGOZZINE, B. 2016. *Doing case study research: A practical guide for beginning researchers*, Teachers College Press, New York.
- HANNUM, E. & BUCHMANN, C., 2003. *The consequences of global educational expansion*. American Academy of Arts and Sciences, Cambridge, MA.

- HARDING, S. 2016. *Whose science? Whose knowledge?: Thinking from women's lives*, Cornell University Press, Ithaca.
- HARGITTAI, E., PIPER, A. M. & MORRIS, M. R. 2018. From internet access to internet skills: digital inequality among older adults. *Universal Access in the Information Society*, vol. 17, no. 3, pp. 621-633.
- HARNISCHFEGGER, J. 2019. Biafra and Secessionism in Nigeria: An Instrument of Political Bargaining. In: DE VRIES, L., ENGLEBERT, P. & SCHOMERUS, M. (eds.) *Secessionism in African Politics: Aspiration, Grievance, Performance, Disenchantment*. Cham: Springer. Chapter 12.
- HARTMANN, H., 2018. Economic security for women and children: what will it take?. In Borosage, R. (ed.) *The Next Agenda*. Routledge, London. pp. 127-159.
- HEFLIN, H., SHEWMAKER, J. & NGUYEN, J. 2017. Impact of mobile technology on student attitudes, engagement, and learning. *Computers & Education*, vol. 107, pp. 91-99.
- HERZ, B.K. & SPERLING, G.B., 2004. What works in girls' education: Evidence and policies from the developing world. Council on Foreign Relations, Washington, DC. *International Journal of Educational Development*, vol. 25, no. 4, pp.395-407.
- HETLAND, P. & MØRCH, A. I. 2016. Ethnography for investigating the Internet. *Seminar.net*, vol. 12, no. 1, pp. 1-14.
<https://journals.hioa.no/index.php/seminar/article/view/2335>
- HILLIER, M. 2018. Bridging the digital divide with off-line eLearning. *Distance Education*, vol. 39, no. 1, pp. 110-121.
- HINE, C., 2008. Virtual ethnography: Modes, varieties, affordances. *The SAGE handbook of online research methods*, Sage, London, pp.257-270.
- HINE, C. 2017. From virtual ethnography to the embedded, embodied, everyday internet. *The Routledge companion to digital ethnography*. Routledge, London.

- HIRSCH, E. D. 2019. *Why knowledge matters: Rescuing our children from failed educational theories*, Harvard Education Press, Cambridge, MA.
- HOCKEY, J. 2002. Interviews as ethnography? Disembodied social interaction in Britain. In Rapport N (ed.). *British Subjects: An Anthropology of Britain*. Berg, Oxford, pp. 209-222.
- HOCKEY, J. & FORSEY, M. 2012. Ethnography is not participant observation: Reflections on the interview as participatory qualitative research. In Skinner, J. (ed.) *The interview: An ethnographic approach*, Bloomsbury, London, pp. 69-87.
- HOLLOWAY, I. & TODRES, L. 2003. The status of method: flexibility, consistency and coherence. *Qualitative research*, vol. 3, no. 3, pp. 345-357.
- HOLM, G. & LEHTOMÄKI, E. 2017. Culturally responsive qualitative research. In Lehtomäki, E., Janhonen-Abuquah, H. & Kahangwa, G. (eds.) *Culturally Responsive Education: Reflections from the Global South and North*, Routledge, London, pp. 68-80.
- HUGHES, M. M., PAXTON, P., QUINSAAT, S. & REITH, N. 2018. Does the Global North still dominate women's international organizing? A network analysis from 1978 to 2008. *Mobilization: An International Quarterly*, vol. 23, no. 1, pp. 1-21.
- HUIS, M.A., HANSEN, N., OTTEN, S. & LENSINK, R., 2017. A three-dimensional model of women's empowerment: Implications in the field of microfinance and future directions. *Frontiers in psychology*, vol. 8, pp. 1678.
- HWANG, G.J. & TSAI, C.C., 2011. Research trends in mobile and ubiquitous learning: A review of publications in selected journals from 2001 to 2010. *British Journal of Educational Technology*, vol. 42, no. 4, pp. 65-70.
- IBRAHIM, S. & TIWARI, M. 2014. *The capability approach: From theory to practice*. Palgrave Macmillan, London.
- IBRAHIM, S. S., OZDESER, H. & CAVUSOGLU, B. 2019. Vulnerability to recurrent shocks and disparities in gendered livelihood diversification in remote areas of Nigeria. *Environmental Science and Pollution Research*, vol. 26, no. 3, pp. 2939-2949.

IFENTHALER, D. 2018. How we learn at the digital workplace. In Ifenthaler, D. (ed.) *Digital Workplace Learning*. Springer, Cham, pp. 3-8.

IGWE, P. A., NEWBERY, R., AMONCAR, N., WHITE, G. R. & MADICHIE, N. O. 2018. Keeping it in the family: exploring Igbo ethnic entrepreneurial behaviour in Nigeria. *International Journal of Entrepreneurial Behavior & Research*, vol. 26, no. 1, pp. 1-20.

IJERE, M. O. & MBANASOR, J. A. 1998. *Modern Organisation and Management of Women Co-Operatives*. Alhabet Nigeria, Owerri.

ILESANMI, O. & KAREEM, A. 2018. Perception of rural communities in Akoko North West local government area of Ondo State, Nigeria, towards the Ikaram Millennium Village Project. *Healthcare in Low-resource Settings*, vol. 6, no. 1, pp. 7-10.

IMAM, H. 2012. Educational policy in Nigeria from the colonial era to the post-independence period. *Italian Journal of sociology of education*, vol. 4, no. 1, pp. 181-204.

INTERNATIONAL PLANNED PARENTHOOD FEDERATION, 2015. Sexual and reproductive health and rights—the key to gender equality and women’s empowerment. *Vision 2020 Report*, viewed 25 January 2019 < <https://www.ippf.org/resource/vision-2020-gender-report>>

INTRILIGATOR, M. 2017. Globalisation of the World Economy: Potential Benefits and Costs and a Net Assessment. In Gangopadhyay, P. (ed.) *Economics of Globalisation*. Routledge, London, pp. 85-94.

ISIUGO-ABANIHE, U. C. & FAYEHUN, O. 2017. Ethnic, Religious and Educational Homogamy in Nigeria. *African Population Studies*, vol. 31, no. 1, pp. 3510-3518. DOI: <https://doi.org/10.11564/31-1-1012>

JACOBS, I., OLANREWaju, T. & CHUKWUDI, P. 2017. Comparative assessment of rural development programs of selected NGOs in Plateau state, North-Central, Nigeria. *Journal of Rural Social Sciences*, vol. 32, no. 1, pp. 40-55.

JAYAWEERA, S., 1997. Women, education and empowerment in Asia. *Gender and Education*, vol. 9, no. 4, pp. 411-424.

JIMÉNEZ, A. & ZHENG, Y. A 2017. A Spatial perspective of innovation and development: Innovation hubs in Zambia and the UK. *International Conference on Social Implications of Computers in Developing Countries, 2017*. Springer, Berlin, pp. 171-181.

JOLAADE, A. T. & ABIOLA, I. A. 2016. Patriarchy and customary law as major cogs in the wheel of women's peace building in South Sudan. *Journal of Gender, Information and Development in Africa (JGIDA)*, vol. 5, no. 1-2, pp. 53-75.

JORGENSEN, D. L. 2015. Participant observation. In: R.A. Scott and S.M. Kosslyn (eds) *Emerging Trends in the Social and Behavioral Sciences*. Hoboken: Wiley, pp. 1-15.
DOI:10.1002/9781118900772.etrds

JOSEPH, R. A. 2018. Class, state, and prebendal politics in Nigeria. In Lewis, P. (ed.) *mAfrica: Dilemmas of Development and Change*. Boca Raton, Taylor and Francis, chapter 2.

JUUJÄRVI, S. & LUND, V. 2015. Participatory action research as a practice of empowerment in deprived communities. Association for Moral Education 41st Conference Proceedings, Santos, Brazil.

KABEER, N., 1999. *The conditions and consequences of choice: reflections on the measurement of women's empowerment* United Nations Research Institute for Social Development, Code DP 108, Geneva.

KABEER, N., 2005. Gender equality and women's empowerment: A critical analysis of the third millennium development goal 1. *Gender & Development*, vol. 13, no.1, pp. 13-24.

KABEER, N. 2012. Women's economic empowerment and inclusive growth: labour markets and enterprise development. *International Development Research Centre*, vol. 44, no. 10, pp. 1-70.

KABEERs, N., 2001, Resources, Agency, Achievements: Reflections on the

Measurement of Women's Empowerment, in *Discussing Women's Empowerment - Theory and Practice*, Sisask, A. (ed), Sida Studies No. 3, Swedish International Development Agency, Stockholm, pp. 17-59.

KABIR, F. S. & KADAGE, A. T. 2017. ICTs and Educational Development: The Utilization of Mobile Phones in Distance Education in Nigeria. *Turkish Online Journal of Distance Education*, vol. 18 no. 1, pp. 63-76.

KAGITCIBASI, C., GOKSEN, F. & GULGOZ, S., 2005. Functional adult literacy and empowerment of women: Impact of a functional literacy program in Turkey. *Journal of adolescent & adult literacy*, vol. 48, no. 6, pp. 472-489.

KALBA, K., 2008. The adoption of mobile phones in emerging markets: Global diffusion and the rural challenge. *International journal of Communication*, vol. 2, pp. 631-661.

KALU, K. & FALOLA, T. 2019. Introduction: Exploitation, Colonialism, and Postcolonial Misrule in Africa. In KALU, K. & FALOLA, T. (eds.) *Exploitation and Misrule in Colonial and Postcolonial Africa*. Springer, Cham, pp. 1-23.

KAMAU, S.C., 2016. Engaged online: Social media and youth civic engagement in Kenya. In MUTSVAIRO, B (ed). *Digital Activism in the Social Media Era*. Palgrave Macmillan, London, pp. 115-140.

KANDIYOTI, D., 1988. Bargaining with patriarchy. *Gender & society*, vol. 2, no. 3, pp. 274-290.

KANTER, B. & FINE, A. H. 2010. *The Networked Non profit*. John Wiley, San Francisco.

KARABONA, R. 2015. Extent of Adult Education Programs on Empowering Skill to Women in Income Generation in Mkinga District. Masters Thesis. The Open University of Tanzania.

KARUNWI, A., 2004. The role of NGOs in gender awareness. In Akinboye, S.O. (ed) *Paradox of Gender Equality in Nigerian Politics*, Concept Publications, Lagos. pp. 188-203.

KAVANAGH, A. & O'ROURKE, K. 2016. Digital Literacy: Why It Matters, viewed 21 November 2018

<<https://arrow.dit.ie/cgi/viewcontent.cgi?article=1036&context=ltcart>>

KAYE, A. & HARRY, K. 2018. *Using the media for adult basic education*, Routledge, Abingdon.

KEATING, V. C. & THRANDARDOTTIR, E. 2016. NGOs, trust, and the accountability agenda. *The British Journal of Politics and International Relations*, vol. 19, no. 1, pp. 134-151.

KEM, D. 2018. Role of Information and Communication Technology in Open and Distance Learning. *Research Journal of Social Sciences*, vol. 9, no. 11, pp. 55-59.

KEMP, S. & SQUIRES, J. 1998. *Feminisms*. Oxford University Press, Oxford.

KHIENG, S. & DAHLES, H. 2015. Resource Dependence and Effects of Funding Diversification Strategies Among NGOs in Cambodia. *VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations*, vol. 26, no. 4, pp. 1412-1437.

KIM, Y. 2016. How NGOs Influence US Foreign Aid Allocations. *Foreign Policy Analysis*, vol. 13, no. 1, pp. 112-132.

KIMWAREY, M., CHIRURE, H. & OMONDI, M. 2014. Teacher empowerment in education practice: Strategies, constraints and suggestions. *Journal of Research & Method in Education*, vol. 4, no. 2, pp. 51-56.

KING, K. & PALMER, R., 2013. Education and Skills Post-2015: What Evidence? Whose Perspectives. Network for International Policies and Cooperation in Education and Training, (NORRAG) Working Paper, 6.

KIVUNJA, C. & KUYINI, A. B. 2017. Understanding and Applying Research Paradigms in Educational Contexts. *International Journal of Higher Education*, vol. 6, no. 5, pp. 26-41.

KLEIBL, T. & MUNCK, R. 2017. Civil society in Mozambique: NGOs, religion, politics and

witchcraft. *Third World Quarterly*, vol. 38, no. 1, pp. 203-218.

KLEINE, D. 2011. The capability approach and the 'medium of choice': steps towards conceptualising information and communication technologies for development. *Ethics and Information Technology*, vol. 13, no. 2, pp. 119-130.

KNIGHT, D. W. 2018. An institutional analysis of local strategies for enhancing pro-poor tourism outcomes in Cuzco, Peru. *Journal of Sustainable Tourism*, vol. 26, no. 4, pp. 631-648.

KOZINETS, R. V. 2015. *Netnography: Redefined*. Sage publications, Thousand Oaks.

KOZINETS, R. 2017. Netnography: radical participative understanding for a networked communications society. In Willig, C. and Stainton Rogers, W. (eds.) *The SAGE Handbook of Qualitative Research in Psychology*, Sage, Thousand Oaks, pp. 374-380.

KRIJNEN, T. A. 2017. Feminist Theory and the Media. In Rössler, P., Hoffner, C., A. & Zoonen., (eds) *The International Encyclopedia of Media Effects*. John Wiley, Hoboken, pp. 1-12. doi:10.1002/9781118783764.wbieme0096

KURTIŞ, T., ADAMS, G. & ESTRADA-VILLALTA, S. 2016. Decolonizing empowerment: Implications for sustainable well-being. *Analyses of Social Issues and Public Policy*, vol. 16, no. 1, pp. 387-391.

KVASNY, L., 2006. Cultural (re) production of digital inequality in a US community technology initiative. *Information, Communication & Society*, vol. 9, no. 2, pp. 160-181.

LAMBERT, L. A. & HASSAN, H. 2018. MOOCs and International Capacity Building in a UN Framework: Potential and Challenges. In: LEAL FILHO, W., MIFSUD, M. & PACE, P. (eds.) *Handbook of Lifelong Learning for Sustainable Development*. Springer, Cham.

LANGER, R. & BECKMAN, S. C. 2005. Sensitive research topics: netnography revisited. *Qualitative Market Research: An International Journal*, vol. 8, no. 2, pp. 189-203.

LARREGUY, H. & MARSHALL, J. 2017. The effect of education on civic and political engagement in nonconsolidated democracies: Evidence from Nigeria. *Review of*

Economics and Statistics, vol. 99, no. 3, pp. 387-401.

LATCHEM, C. 2018. Adult Literacy, Post-Literacy and English as a Second Language. *Open and Distance Non-formal Education in Developing Countries*. Springer, Singapore, pp. 11-17.

LAWAL, L.S., CHATWIN, C.R. & HASAN, R., 2018. The communications satellite industry as an element in Nigeria's attempt to modernise its economy and society. *International Journal of African and Asian Studies*, vol. 51, pp.30-39.

LERCH, J., BROMLEY, P., RAMIREZ, F. O. & MEYER, J. W. 2017. The rise of individual agency in conceptions of society: Textbooks worldwide, 1950–2011. *International Sociology*, vol. 32, no. 1, pp. 38-60.

LESETEDI, G.N., 2018. A theoretical perspective on women and poverty in Botswana. *Journal of International Women's Studies*, vol. 19, no. 5, pp. 193-208.

LILENSTEIN, K., WOOLARD, I. & LEIBBRANDT, M. 2018. 23 In-work poverty in South Africa: the impact of income sharing in the presence of high unemployment. In MARX, I. & LOHMANN, H. *Handbook of Research on In-Work Poverty*, Edward Elgar, Cheltenham, Chapter23.

LIM, D. H. & TSCHOPP-HARRIS, K. 2018. Inverted Constructivism to Leverage Mobile-Technology-Based Active Learning. *Handbook of Research on Mobile Technology, Constructivism, and Meaningful Learning*. IGI Global, pp. 240-258.

LIND, A. C. 2018. Power, gender, and development: popular women's organizations and the politics of needs in Ecuador. In Escobar, A. (ed.) *The making of social movements in Latin America*. Routledge, New York, Chapter 8.

LINGEL, J., 2012. Ethics and dilemmas of online ethnography. In *CHI'12 Extended Abstracts on Human Factors in Computing Systems*, pp. 41-50.
<https://doi.org/10.1145/2212776.2212782>

LOVE, K.L., 2016. Black Feminism: An Integrated Review of Literature. *ABNF Journal, Official Journal of the Black Nursing Faculty in Higher Education*, vol. 27, no. 1, pp. 11-

15.

LOVEJOY, K. & SAXTON, G.D., 2012. Information, community, and action: How nonprofit organizations use social media. *Journal of computer-mediated communication*, vol. 17, no. 3, pp. 337-353.

LOVETT, T., CLARKE, C. & KILMURRAY, A. 2018. *Adult education and community action: Adult education and popular social movements*, Routledge, London.

LUCKY, O. 2016. Significance of community participation in rural development. *Journal of Agriculture and Earth Science*, 2(2), 44-53.

LUYTS, J. 2016. When feminist standpoint epistemology and participatory research meet: towards knowledge that are more power-aware and inclusive. Masters Thesis, University of Utrecht.

MACKOWICZ, J. & WNEK-GOZDEK, J., 2016. "It's never too late to learn"—How does the Polish U3A change the quality of life for seniors? *Educational Gerontology*, vol. 42, no. 3, pp.186-197.

MADER, P. 2018. Contesting financial inclusion. *Development and Change*, vol. 49, no. 2, pp. 461-483.

MAHMUD, W. 2017. Is There an Economics of Social Business. *The Journal of Bangladesh Studies*, vol. 30B, no. 3-4, pp. 159-169. viewed 20 April 2018 <
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2971325>

MAIR, J., WHITFORD, M. & MACKELLAR, J., 2013. Participant observation at events: theory, practice and potential. *International Journal of Event and Festival Management*, vol. 4, no. 1, pp. 56-65.

MALGHAN, D. & SWAMINATHAN, H., 2017. Intra--household Gender Inequality and Economic Development: Evidence from Global Data, 1973--2013. IIM Bangalore Research Paper no.522.

MANGA, S. & MERA, M. 2016. Rethinking Education for Sustainable Development: The

Role of Tertiary Institutions in Nigeria. *UDUS Open Educational Resources*, viewed 20 April 2017. <http://hdl.handle.net/123456789/795>

MANUEL, A., VAN DER LINDEN, J. & POPOV, O. 2017. Educators in non-formal vocational education and training in Mozambique: a plea for recognition and professionalisation. *International Journal of Lifelong Education*, vol. 36, no. 3, pp. 324-338.

MARCUS, R., HARPER, C., BRODBECK, S. & PAGE, E. 2015. Social norms, gender norms and adolescent girls: a brief guide. *From the Knowledge to Action Resources Series*. Overseas Development Institute, viewed 20 June 2018, <https://www.odi.org/publications/9804-social-norms-gender-norms-and-adolescent-girls-brief-guide>

MARE, A., 2016. Baba Jukwa and the digital repertoires of connective action in a 'competitive authoritarian regime': The case of Zimbabwe. *In Digital activism in the social media era*. Palgrave Macmillan, Cham, pp. 45-68

MARKHAM, A. N. 2005. The methods, politics, and ethics of representation in online ethnography. Denzin, N. & Lincoln, Y. (eds.) *The Sage Handbook of Qualitative Research*, SAGE, Thousand Oaks, CA, pp. 247-284.

MARTIN, M. 2017. Developing a feminist participative research framework: Evaluating the process. In Humphries, B. (ed.) *Re-thinking social research*. Routledge, London. Chapter 7

MARTINEZ, J. & REILLY, K., 2002. Looking behind the Internet: Empowering women for public policy advocacy in Central America. *UN INSTRAW Virtual Seminar Series*.

MASIKA, R. & BAILUR, S. 2015. Negotiating Women's Agency through ICTs: A Comparative Study of Uganda and India. *Gender, Technology and Development*, vol. 19, no. 1, pp. 43-69.

MASITA-MWANGI, M., MWAKABA, N., RONO-H-BOREH, F. & IMPIO, J. 2012. Building a case for m-learning in Africa: African youth perspectives on education. CHI'12

extended abstracts on human factors in computing systems, 2012. *Association for Computing Machinery, New York, NY, USA*, pp. 521-536.

<https://doi.org/10.1145/2212776.2212827>

MATHUR, P. & AGARWAL, P. 2017. Self-help groups: a seed for intrinsic empowerment of Indian rural women. *Equality, Diversity and Inclusion: An International Journal*, vol. 36, no. 2, pp. 182-196.

MAYOUX, L., 2010. Reaching and empowering women: Towards a gender justice protocol for a diversified, inclusive, and sustainable financial sector. *Perspectives on Global Development and Technology*, vol. 9, no. 3-4, pp. 581-600.

MBUYISA, B. & LEONARD, A. 2017. The role of ICT use in SMEs towards poverty reduction: A systematic literature review. *Journal of International Development*, vol. 29, no. 2, pp. 159-197.

MCADAM, M., CROWLEY, C. & HARRISON, R. T. 2018. "To boldly go where no [man] has gone before" - Institutional voids and the development of women's digital entrepreneurship. *Technological Forecasting and Social Change*, vol. 46, pp. 912-922.

MCLAREN, P.L., 1988. On ideology and education: Critical pedagogy and the politics of empowerment. *Social Text*, vol. 19/20, pp. 153-185.

MCLEAN, L. & MODI, A. T. 2016. 'Empowerment' of adolescent girls and young women in Kinshasa: research about girls, by girls. *Gender & Development*, vol. 24, no. 3, 475-491.

MEHDIPOUR, Y. & ZEREHKAFI, H. 2013. Mobile learning for education: Benefits and challenges. *International Journal of Computational Engineering Research*, vol. 3, no. 6, pp. 93-101.

MELHEM, S., MORRELL, C., TANDON, N. 2009. *Information and Communication Technologies for Women's Socio-Economic Empowerment*. World Bank Working Paper no. 176, Geneva.

MENEZES, I. M. C. A., OVIGLI, D. F. B. & COLOMBO JR, P. D. 2018. The Relationship

between Formal Education and Non-Formal Education: A Descriptive and Analytical Review of the Publications about Astronomy Education in Journals and Events Related to Science Teaching in the Brazilian Context. *Science Education International*, vol. 29, no. 1, pp. 11-19.

MERRIAM, S.B. & GRENIER, R.S. eds., 2019. *Qualitative research in practice: Examples for discussion and analysis*. John Wiley & Sons. Chapter 1.

MEZIROW, J., 1990. Conclusion: Toward transformative learning and emancipatory education. In MEZIROW, J. & Associates, *Fostering critical reflection in adulthood: A guide to transformative and emancipatory learning*, Jossey-Bass, San Francisco, pp. 354-376.

MEZIROW, J., 2000. Learning to think like an adult. In MEZIROW, J and Associates (eds.) *Learning as transformation: Critical perspectives on a theory in progress*, Jossey-Bass, San Francisco, pp.3-33.

MICHAEL, O.-B. A. & WUMI, O. 2017. Education Funding and Human Capital Development in Nigeria. *Journal of World Economic Research*, vol. 6, no. 1, pp. 5-16.

MILAZZO, A. & GOLDSTEIN, M., 2017. Governance and Women's Economic and Political Participation: Power Inequalities, Formal Constraints and Norms. *The World Bank Research Observer*. Vol. 34, no. 1, pp. 34–64

MILLER, J. M. & TEWKSBURY, R. 2010. The case for edge ethnography. *Journal of criminal justice education*, vol. 21, no. 4, pp. 488-502.

MOGHADAM, V.M., 2018. Gender dynamics of restructuring in the semiperiphery. In Rakowski, C. *Engendering Wealth and Well-being*. Routledge, New York, pp. 17-37.

MOHANTY, C. T., RUSSO, A. & TORRES, L. (eds.) 1991. *Third world women and the politics of feminism*, Indiana University Press, Bloomington. Chapter 1

MONKMAN, K., 1998. Training women for change and empowerment. In STROMQUIST, N and MONKMAN, K. (eds.) *Women in the Third World: an encyclopedia of contemporary issues*, Garland, New York, pp.498-509.

MOSER, C. O. 2012. *Gender planning and development: Theory, practice and training*, Routledge, London.

MUÑOZ, L. G., MODROÑO, P. R. & DOMÍNGUEZ-SERRANO, M. 2016. Too Much Family and Too Much Gender Inequality: Women's and Men's Total Work in Mediterranean Countries. Addis, E., de Villota, P., Degavre, F. & Eriksen, J. (eds.) *Gender and Well-Being: The Role of Institutions*. Routledge, London, Chapter 4.

MURPHY-GRAHAM, E., 2012. *Opening minds, improving lives: education and women's empowerment in Honduras*. Vanderbilt University Press, Nashville.

MURPHY-GRAHAM, E. & LLOYD, C. 2016. Empowering adolescent girls in developing countries: The potential role of education. *Policy Futures in Education*, vol. 14, no. 5, pp. 556-577.

MUSTAPHA, A. B., SAID, R. & SIDIQUE, S. F. 2015. Urban poverty, inequality and industry in Nigeria. *International Journal of Development Issues*, vol. 14, no. 3, pp. 249-263.

MUTSVAIRO, B. & RAGNEDDA, M. 2017. Emerging political narratives on Malawian digital spaces. *Communicatio*, vol. 43, no. 2, pp. 147-167.

MUTSVAIRO, B., 2018. If I were a Carpenter: Reframing Debates in Media and Communication Research in Africa. In MUTSVAIRO, B. (ed) *The Palgrave Handbook of Media and Communication Research in Africa* Palgrave Macmillan, Houndsmill, pp. 3-17.

MUTSVAIRO, B., 2016. Dovetailing Desires for Democracy with New ICTs' Potentiality as Platform for Activism. In MUTSVAIRO, B. (ed) *Digital Activism in the Social Media Era; Critical Reflections on Emerging Trends in Sub-Saharan Africa*. Palgrave Macmillan, Houndsmill, pp. 3-23.

MUTSVAIRO, B., & MOYO, L. 2018. Can the Subaltern Think? The Decolonial Turn in Communication Research in Africa. In Mutsvairo, B. (ed). *The Palgrave Handbook of Media and Communication Research in Africa*. Palgrave Macmillan, Houndsmill, pp. 19-

40.

NAIR, U. 2015. Soft systems methodology for personalized learning environment. *E-Learning and Digital Media*, vol. 12, no. 1, pp. 34-56.

NANDAN, S. & KUSHWAHA, A. 2017. Role of NGOs in skill development and promotion of micro-entrepreneurship among women: a study of Allahabad district. *Management Dynamics*, vol. 17, no. 2, pp. 38-50.

NANDI, S., THOTA, S., NAG, A., DIVYASUKHANANDA, S., GOSWAMI, P., ARAVINDAKSHAN, A., RODRIGUEZ, R. & MUKHERJEE, B., 2016. Computing for rural empowerment: enabled by last-mile telecommunications. *IEEE Communications Magazine*, vol. 54, no. 6, pp. 102-109.

NATH, V., 2001. Empowerment and governance through information and communication technologies: women's perspective. *The International Information & Library Review*, vol. 33, no. 4, pp. 317-339.

NATION MASTER, 2018. Nigeria Media Stats., viewed 21 January 2019
<<https://www.nationmaster.com/country-info/profiles/Nigeria/Media>>

NATIONAL RESEARCH COUNCIL, 2012. *Improving adult literacy instruction: Supporting learning and motivation*, National Academies Press, Washington, DC.

NAVABI, N., GHAFARI, F. & JANNAT-ALIPOOR, Z., 2016. Older adults' attitudes and barriers toward the use of mobile phones. *Clinical interventions in aging*, vol. 11, pp. 1371-1378.

NDLELA, M. N. & MULWO, A. 2017. Social media, youth and everyday life in Kenya. *Journal of African Media Studies*, vol. 9, no.2, pp. 277-290.

NDLELA, M.N., 2015. Social Media and Elections in Kenya. In Bruns, A., Enli, G., Skogerbo, E., Larsson, A.O. & Christensen, C. (eds.) *The Routledge Companion to Social Media and Politics* Routledge, London, pp. 460-470.

NDLELA, M.N. & TUFTE, T., 2017. Making sense and use of new media in Sub-Saharan

Africa. *Journal of African Media Studies*, vol. 9, no. 2, pp. 243-246.

NDUPU, N. C. & AKWARA, U. C. 2016. Patriarchy and emergent gender equality in Nigeria. *The Melting Pot*, vol. 2, no. 1, pp. 84-96.

<https://journals.aphriapub.com/index.php/TMP/article/view/17>

NEDUNGADI, P., MULKI, K. & RAMAN, R., 2018. Improving educational outcomes & reducing absenteeism at remote villages with mobile technology and WhatsApp: Findings from rural India. *Education and Information Technologies*, vol. 23, no. 1, pp. 113-127.

NEUENDORF, K.A., 2019. Content analysis and thematic analysis. *Advanced Research Methods for Applied Psychology*. In BROUGH, P. (ed), *Research methods for applied psychologists: Design, analysis and reporting*. Routledge, New York, pp. 211-223.

NIGERIAN COMMUNICATIONS COMMISSION. 2018. Industry Information, viewed 11 February 2019 < <https://www.ncc.gov.ng/stakeholder/statistics-reports/industry-overview#view-graphs-tables-5>>

NIGERIAN INVESTMENT PROMOTION COMMISSION, 2019. Economic Recovery Growth Plan, viewed 22 April 2020 < <https://nipc.gov.ng/ViewerJS/?#../wp-content/uploads/2019/01/Economic-Recovery-Growth-Plan-2017-2020.pdf>>

NIKKAH, H., 2010. *Women Empowerment through nongovernmental organizations (NGOs) programmes*. PhD thesis, University Putra Malaysia.

NIKOU, S. A. & ECONOMIDES, A. A. 2017. Mobile-based assessment: Investigating the factors that influence behavioral intention to use. *Computers & Education*, vol. 109, pp. 56-73.

NIMROD, G. 2018. Technophobia among older Internet users. *Educational Gerontology*, vol. 44, no. 2-3, pp. 148-162.

NISHIJIMA, M., IVANAUSKAS, T. M. & SARTI, F. M. 2017. Evolution and determinants of digital divide in Brazil (2005–2013). *Telecommunications Policy*, vol. 41, no. 1, pp. 12-24.

- NJERU, S. 2009. Information and Communication Technology (ICT), Gender, and Peacebuilding in Africa: A Case of Missed Connections. *Peace and Conflict Review*, vol. 3, no. 2, pp. 32-40.
- NKEALAH, N., 2016. (West) African feminisms and their challenges. *Journal of literary Studies*, vol. 32, no. 2, pp. 61-74.
- NNAEMEKA, O., 2003. Nego-Feminism: Theorizing, Practicing, and Pruning Africa's Way. *Reprinted in Journal of Women in Culture and Society*, vol. 29, no. 2, pp. 357-385.
- NORMAN, H., ALLY, M. & NORDIN, N. 2018. Use of Social Media and Social Network Analysis for Mobile Learning. In YU, S., ALLY, M. & TSINAKOS, A. (eds.) *Mobile and Ubiquitous Learning: An International Handbook*. Springer, Singapore, pp. 249-260.
- NORRIS, E. I. & OSAYANDE, E. 2017. Influence of Adult Literacy Education on the Environmental Behaviours of Women. *European Scientific Journal*, vol. 13, no. 20, pp. 241-250.
- NOWELL, L. S., NORRIS, J. M., WHITE, D. E. & MOULES, N. J. 2017. Thematic analysis: Striving to meet the trustworthiness criteria. *International Journal of Qualitative Methods*, vol. 16, no. 1, pp. 1-13.
- NUTTAVUTHISIT, K. 2019. *Qualitative Consumer and Marketing Research; the Asian Perspectives and Practices*. Springer, Singapore.
- NWANGWU, C. & EZEIBE, C. 2019. Femininity is not Inferiority: women-led civil society organizations and "countering violent extremism" in Nigeria. *International Feminist Journal of Politics*, vol. 21, no. 2, pp. 1-26.
- NWANKWO, S. N. 2018. Public Assessment of Education Component of the Women Empowerment Programme in Anambra State, Southeast Nigeria. *International Journal of Health and Social Inquiry*, vol. 4, no. 1, pp 101-117.
<https://www.journals.aphriapub.com/index.php/IJHSI/article/view/368>
- NWOBI, A., NGOZI, U., RUFINA, N. & OGBONNAYA, K. A. 2016. Implementation of Information Communication Technology in the Teaching/Learning Process for

Sustainable Development of Adults in West Africa Sub Sahara Region. *Journal of Education and Practice*, vol. 7, no. 21, pp. 14-19.

OBASI, S. 2014. Adult Education in Nigeria: A Discipline in Search of Scope and Direction? *Adult Education*, vol. 5, no. 11, pp. 27-31.

OCHOLI, J. A. & OCHOLI, D. I. 2017. Guidance and Counselling as Veritable Tool for Girl-Child Transformation in Post Primary Education in Nigeria. *International Journal for Cross-Disciplinary Subjects in Education*, vol. 8, no. 3, pp. 3186-3192.

ODERINDE, C., O. & ADENUGBA, A. A. 2017. Women are labourers, men are foremen: understanding gender roles at the informal building construction sites in Ibadan. *Gender and Behaviour*, vol. 15, no. 1, pp. 8117-8134.

ODIDI, M. O. 2019. 'The Church and Social Responsibilities: A Case Study of the Development of Church Schools in the Diocese of Kaduna, Church of Nigeria, Anglican Communion'. Doctoral Thesis, School of Theology, University of the South.

ODINYE, I., 2012. Western influence on Chinese and Nigerian cultures. *OGIRISI: A New Journal of African Studies*, vol. 9, pp. 108-115.

ODUKOYA, J. A., BOWALE, E. I. & OKUNLOLA, S. 2018. Formulation and implementation of educational policies in Nigeria. *African Educational Research Journal*, vol. 6, no. 1, pp. 1-4.

ODUSOLA, A. 2018. Poverty and fertility dynamics in Nigeria: a micro evidence. *SSRN Electronic Journal*, viewed 12 December 2019
<https://www.researchgate.net/publication/228609452_Poverty_and_Fertility_Dynamics_in_Nigeria_A_Micro_Evidence>

OECD 2001. Understanding the Digital Divide", *OECD Digital Economy Papers*, No. 49, OECD, viewed 17 April 2018 https://www.oecd-ilibrary.org/science-and-technology/understanding-the-digital-divide_236405667766

OECD 2012. Gender equality in education, employment and entrepreneurship: *Final report to the MCM 2012*. Viewed 17 April 2018

<https://www.oecd.org/employment/50423364.pdf>

OGUNRINDE, A., 2015. Marriage, Markets, and Mentorship: An Ethnography on the Ambitions of and Obstacles Facing Nigerian Women Micro-Entrpreneuers. *Social Impact Research Experience (SIRE)*. No. 39

OGUNYINKA, E. K., OKEKE, T. I. & ADEDOYIN, R. C. 2015. Teacher education and development in Nigeria: An analysis of reforms, challenges and prospects. *Education Journal*, vol. 4, no. 3, pp. 111-122.

OHAE, L. 2018. Poverty in the midst of plenty: the paradox of Nigeria's development. *INAUGURAL LECTURE SERIES No.145*, University of Port Harcourt 2018, viewed 12 December 2018 <https://www.uniport.edu.ng/files/145InauguralLectureMainWork.pdf>

OJO, T. 2016. Global agenda and ICT4D in Africa: Constraints of localizing 'universal norm'. *Telecommunications Policy*, vol. 40, no. 7, pp. 704-713.

OKAFOR, E. E. & AKOKUWEBE, M. E. 2015. Women and leadership in Nigeria: Challenges and prospects. *Developing Country Studies*, vol. 5, no. 4, pp. 1-10.

OKAFOR, I. P., BALOGUN, A. O., ABDULAZIZ, I., ONIYE, R. K. & IYEKOLO, O. A. 2018. Socio-Cultural Factors and Girl Education in Nupe Land, Nigeria: Challenges to Access and Completion Rate. *KIU Journal of Humanities*, vol. 2 no. 2B, pp. 79-89.

OKAFOR, S. 2017. Enlightenment on population control and youth exposure to formal education via General Studies: The antithesis to politico-religious conflicts in Nigeria. *Journal of Research and Development*, vol. 5, no. 2, pp. 156-162.

OKE, T. I., MAINOMA, H. U. M. & BUKAR, I. B. 2018. Exploring Alternative Sources of Funding Universal Basic Education for Sustainable Development in Nigeria. *KIU Journal of Humanities*, vol. 2, no. 2A, pp. 31-38.

OKON, E. O. 2018. Nigeria: Does Terrorism Spring from Economic Conditions? *American Economic & Social Review*, vol. 2, no. 1, pp. 20-32.

OKON, U. A. & ISRAEL, E. E. 2016. Influence of free and compulsory education on the

quality of Basic education in Nigeria. *International Journal of Education Benchmark*, vol. 3, no. 1, pp. 81-90.

OKORIE, M. 2017. An assessment of factors militating against girl child education in Nigeria. *International Journal of Advanced and Multidisciplinary Social Science*, vol. 3, no. 2, pp. 49-54.

OKOYE, A. 2017. Entrepreneurship Education: A Panacea for Graduate Unemployment in Nigeria. *Online Journal of Arts, Management & Social Sciences*, vol. 2, no. 1, pp. 56-63.

OKOYE, C. U. & FLEAD, F. 2016. Institution Building for Grassroots Community and Rural Development in Nigeria: Dominant Themes, Opportunities and Challenges. Public Lecture, 6 June 2016, Centre for Community and Rural Development of Nnamdi Azikiwe University, Awka.

OKPANACHI, E. 2012. Ethno-religious Identity and Conflict in Northern Nigeria. CETRI, Centre Tricontinental. Viewed 17 April <https://www.cetri.be/Ethno-religious-Identity-and?lang=fr>

OLALEYE, S. A., SANUSI, I. T., UKPABI, D. & OKUNOYE, A. 2018. Evaluation of Nigeria Universities Websites Quality: A Comparative Analysis. *Library Philosophy and Practice*, 2018, Article 1717. Viewed 17 April <https://digitalcommons.unl.edu/libphilprac/1717>

OLANIYI, S. 2017. ELearning technology: The Nigeria experience. A paper presented at Shape the Change XXIII FIG Congress, October 8-13, Munich Germany.

OLATOKUN, W. M. 2017. Availability, accessibility and use of ICTs by Nigerian women academics. *Malaysian Journal of Library & Information Science*, vol. 12, no. 2, pp. 13-33.

OLAYE, M. & ONAJITE, F. 2015. Adult and Non-Formal Education: An Imperative for Human Capacity Development and Attainment of Sustainable Livelihoods in Anambra State. *African Research Review*, vol. 9, no. 3, pp. 34-49.

- ỌLÁYỌKÙ, P.A., 2017. Blurring 'the Other': Transforming relations in the management of the 1992 ethno-religious conflicts in Zangon Kataf, Kaduna State, Nigeria. *African Journal on Conflict Resolution*, vol. 17, no. 2, pp. 67-92.
- OLCOTT JR, D. 2013. New Pathways to Learning: Leveraging the Use of OERs to Support Non-formal Education. *International Journal of Educational Technology in Higher Education*, vol. 10, no. 1, pp. 327-344.
- OLOJEDE, A. A. 2017. Achieving the International Benchmarks for Adult Literacy in Nigeria: Post 2015 Challenges and Prospects. *European Scientific Journal*, vol. 13, no. 34, pp. 392-413.
- OLOKOOBA, I. N., OKUNLOYE, R. W., ABDULSALAM, A. A. & BALOGUN, I. N. 2018. Teachers' Perceived Challenges of Using ICT in Teaching Secondary School Social Science Subjects in Ilorin, Nigeria. *KIU Journal of Humanities*, vol. 2, no. 2B, pp. 157-166.
- OLOLUBE, N. P. & EGBEZOR, D. E. 2012. A critical assessment of the role/importance of non-formal education to human and national development in Nigeria: future trends. *International journal of scientific research in education*, vol. 5, no. 2, pp. 71-93.
- OLTMANN, S. M. 2016. Qualitative interviews: A methodological discussion of the interviewer and respondent contexts. *Forum: Qualitative Social Research*, vol. 17, no. 2, Article 15.
- OLUWATAYO, I. & AYODEJI, O. 2017. Determinants of Access to Education and ICT in Nigeria. *Journal of Economics and Behavioral Studies*, vol. 9, no. 4, pp. 153-163.
- OMONIYI, B. B. 2018. An examination of the causes of poverty on economic growth in Nigeria. *Africa's Public Service Delivery and Performance Review*, vol. 6, no. 1, pp. 1-10 .
- OMOREGIE, E.B., 2015, July. Implementation of Treaties in Nigeria: Constitutional Provisions, Federalism Imperative and the Subsidiarity Principle. A paper delivered at the International Conference on Public Policy (ICPP), 1-4 July 2015.

OMOREGIE, N. & ABRAHAM, I.O., 2009. *Persistent gender Inequality in Nigerian Education*. Benin: Benson Idahosa University.

ONAH, N. G., DIARA, B. C. & UROKO, F. C. 2017. Ethno-Religious Conflicts in Nigeria: Implications on Women. *Mediterranean Journal of Social Sciences* vol. 8 no. 5, pp. 61-68.

ONIYE, A. O. 2010. Women Education: Problems and Implications for family responsibility. *The Nigerian Journal of Guidance and Counselling*, vol. 9, no. 1, pp. 255-269.

OPENJURU, G. L. 2016. Older adult education in Uganda. In FINDSEN, B. & FORMOSA, M. (eds.) *International Perspectives on Older Adult Education*. Springer, Cham, pp. 457-465.

OREGLIA, E. & SRINIVASAN, J., 2016. ICT, Intermediaries, and the transformation of gendered power structures. *MIS Quarterly*, vol. 40, no. 2, pp. 501-510.

O'REILLY, K. 2012. *Ethnographic methods*, Routledge, Abingdon.

O'REILLY, K. 2012. Structuration, practice theory, ethnography and migration: bringing it all together. *International Migration Institute Working Papers 2012-61*. Viewed 17 April <https://www.migrationinstitute.org/publications/wp-61-12>

ORIOLO, T. B. & AKINOLA, O. 2018. Ideational Dimensions of the Boko Haram Phenomenon. *Studies in Conflict & Terrorism*, vol. 41, no. 8), pp. 595-618.

ORGERET, K.S., 2018. Gender in African Media Studies. In MUTSVAIRO, B. (ed) *The Palgrave Handbook of Media and Communication Research in Africa*. Palgrave Macmillan, Houndsmill, pp. 347-367.

OSAGHAE, E. E. 2018. The Long Shadow of Nigeria's Military Epochs, 1966–79 and 1983–99. In LEVAN, A.C.& UKATA, P. *The Oxford Handbook of Nigerian Politics*, Chapter 10.

OSAHON, O. & EMMANUEL, E. A. A Wireless network infrastructure architecture for

rural communities. *International Journal of Computer Science & Information Technology*, vol. 9 no. 3, pp. 43-62

OSARENREN-OSAGHAE, R. & IRABOR, Q. 2018. Educational Policies and Programmes Implementations: A Case Study of Education Funding, Universal Basic Education (UBE) and Teacher Education. *International Journal of Educational Administration and Policy Studies*, vol. 10, no. 8, pp. 91-102.

OSEI, G. 2015. Self-help without the self: Critique of non-governmental organizational approaches to rural development in Ghana. *International Social Work*, vol. 60, no. 2, pp. 494-506.

OSEZUA, C.O., 2018. *The Ethnography of the Sex Trade among Bini Women in Southern Nigeria*. In *Africa Now!*. Palgrave Macmillan, Cham.

OTTUH, J. A. 2019. *Towards Ethnic Liberation Theology in Nigeria: A Polemic in a New Testament Perspective*, Cambridge Scholars Publishing, UK.

OYE, N. D., MAZLEENA SALLEH, & N. A. IAHAD. 2011. Challenges of e-learning in Nigerian university education based on the experience of developed countries. *International Journal of Managing Information Technology* vol. 3 no. 2, pp. 39-48.

OYELUDE, A. A. & BAMIGBOLA, A. A. 2013. Women Empowerment through Access to Information: The Strategic Roles of Non-Governmental Organizations in Nigeria. *US-China Education Review*, vol. 3, no. 2, pp. 103-115.

OYITSO, M. 2005. *Role of non-formal education in empowering women in Nigeria*. New Era Publications, Benin City.

PACHLER, N., PIMMER, C. & SEIPOLD, J. EDS., 2011. *Work-based mobile learning: concepts and cases*. Peter Lang., Oxford.

PAIVA, J., MORAIS, C., COSTA, L. & PINHEIRO, A. 2016. The shift from “e-learning” to “learning”: Invisible technology and the dropping of the “e”. *British Journal of Educational Technology*, vol. 47, no. 2, pp. 226-238.

- PALINCSAR, A.S., 1998. Social constructivist perspectives on teaching and learning. *Annual review of psychology*, vol. 49, no. 1, pp.345-375
- PALMER, C., 2014. Making a difference? Accounting for nongovernmental organizations in the co-management of Lore Lindu national park, Indonesia. *The Journal of Environment & Development*, vol. 23, no. 4, pp.417-445.
- PANDA, S. & RATH, S. K. 2018. Information technology capability, knowledge management capability, and organizational agility: The role of environmental factors. *Journal of Management & Organization*. DOI: <https://doi.org/10.1017/jmo.2018.9>
- PARKER, L. D. 2017. Participant observation at the coalface. In Hoque, Z., Parker, L., Covalleski, M. & Haynes, K. (eds.) *The Routledge Companion to Qualitative Accounting Research Methods*, Routledge, London. Chapter 20.
- PARPART, J. L., CONNELLY, P., CONNELLY, M. P. & BARRITEAU, E. 2000. *Theoretical perspectives on gender and development*, International Development Research Centre.
- PATTERSON, A.N., HOWARD, A. & KINLOCH, V., 2016. Black feminism and critical media literacy: Moving from the margin to the center. *Meridians*, vol. 15, no. 1, pp. 40-64.
- PATTON, M. Q. 2002. Two decades of developments in qualitative inquiry: A personal, experiential perspective. *Qualitative social work*, vol. 1, no. 3, pp. 261-283.
- PEICHEVA, D. & MILENKOVA. V., 2017. Knowledge Society and Digital Media Literacy: Foundations for Social Inclusion and Realization n Bulgarian Context. *CALITATEA VIETII*, vol. 28, no. 1, pp. 50–74
- PEREIRA, S., FILLOL, J. & MOURA, P. F. R. D. 2019. Young people learning from digital media outside of school: The informal meets the formal. *Comunicar*, vol. 27, no. 58, pp. 41-50.
- PHILLIPS, R. 2015. How ‘empowerment’ may miss its mark: gender equality policies and how they are understood in women’s NGOs. *Voluntas: International Journal of Voluntary and Nonprofit Organizations*, vol. 26, no. 4, pp. 1122-1142.

PICCOLI, G., AHMAD, R. & IVES, B. 2001. Web-Based Virtual Learning Environments: A Research Framework and a Preliminary Assessment of Effectiveness in Basic IT Skills Training. *MIS Quarterly*, vol. 25, no. 4, pp. 401-426.

PIMMER, C., MATEESCU, M. & GRÖHBIEL, U. 2016. Mobile and ubiquitous learning in higher education settings. A systematic review of empirical studies. *Computers in Human Behavior*, vol. 63, pp. 490-501.

POGOSON, A. I. 2018. Patriarchy and "Closed Spaces. *Ibadan Journal of Sociology*, vol. 7, no. 1, pp. 5-25.

POHL, R. 2018. *An Analysis of Donna Haraway's A Cyborg Manifesto: Science, Technology, and Socialist-feminism in the Late Twentieth Century*, Macat, London.

POLAND, B. & PEDERSON, A. 1998. Reading between the lines: Interpreting silences in qualitative research. *Qualitative inquiry*, vol. 4 no. 2, pp. 293-312.

POLLOK, P., LÜTTGENS, D. & PILLER, F. T. 2014. Leading edge users and latent consumer needs in electromobility: Findings from a netnographic study of user innovation in high-tech online communities. *RWTH-TIM Working Paper, February*. RWTH Aachen. <http://dx.doi.org/10.2139/ssrn.2412081>

POVEDA, S. C. 2016. How can digital inclusion promote social change? Exploring two Brazilian case studies. *Proceedings of the Eighth International Conference on Information and Communication Technologies and Development*, pp. 1-11.

POWELL, G. N. 2018. *Women and men in management*, 5th ed. Sage, Los Angeles.

PRINCEWILL, C. W., DE CLERCQ, E., RIECHER-RÖSSLER, A., JEGEDE, A. S., WANGMO, T. & ELGER, B. S. 2017. Education and Reproductive Autonomy: The Case of Married Nigerian Women. *Narrative inquiry in bioethics*, vol. 7, no. 3, pp. 231-244.

PRÜGL, E. 2017. Neoliberalism with a Feminist Face: Crafting a new Hegemony at the World Bank. *Feminist Economics*, vol. 23, no. 1, pp. 30-53.

PSAKI, S. R., MCCARTHY, K. J. & MENSCH, B. S. 2018. Measuring Gender Equality in

- Education: Lessons from Trends in 43 Countries. *Population and Development Review*, vol. 44, no. 1, pp. 117-142.
- RAGNEDDA, M. & MUTSVAIRO, B., 2018. Digital Inclusion: Empowering People through Information and Communication Technologies. In RAGNEDDA, M., MUTSVAIRO, B. & GOGGIN, G. *The Digital Inclusion. An International Comparative Analysis*. Lexington Books, Lanham, MD, pp. 7-14
- RAGNEDDA, M. & RUIU, M.L., 2017. Social capital and the three levels of digital divide. In RAGNEDDA, M. & MUSCHERT, G. eds. *Theorizing digital divides*, Routledge, London, pp. 27-40.
- RANSELL, S., BORROR, J. & SU, A., 2018. Users not Watchers: Motivation and the use of discussion boards in online learning. *Florida Distance Learning Association Journal*, vol. 3, no. 1, pp. 1-11.
- RAPLEY, T. 2003. Interviews. In Seale, C., Gobo, G., Gubrium, J.F. & Silverman, D. (eds.), *Qualitative research practice*. Sage, Thousand Oaks, CA, pp. 15-33.
- RATHGEBER, E.M., 1990. WID, WAD, GAD: Trends in research and practice. *The Journal of Developing Areas*, vol. 24, no. 4, pp. 489-502.
- RAY, A., 2019. Digital literacy. In *Advanced Methodologies and Technologies in Library Science, Information Management, and Scholarly Inquiry*, IGI Global, pp. 1-11).
- REAL, B., BERTOT, J. C. & JAEGER, P. T. 2014. Rural public libraries and digital inclusion: Issues and challenges. *Information Technology and Libraries*, vol. 33, no. 1, pp. 6-24.
- REDEKER, D. & MARTENS, K. 2018. 15. NGOs and accountability. In Kellow, A. & Murphy-Gregory, H. *Handbook of Research on NGOs*, Edward Elgar, Cheltenham, Chapter 15.
- REEVES, S., KUPER, A. & HODGES, B. D. 2008. Qualitative research methodologies: ethnography. *British Medical Journal*, vol. 337, no. 7668, pp. 512-514.
- REEVES, S., PELLER, J., GOLDMAN, J. & KITTO, S. 2013. Ethnography in qualitative

educational research: AMEE Guide No. 80. *Medical Teacher*, vol. 35, no. 8, pp. 1365-1379.

REIMANN, K. D. 2017. Up to no good? Recent critics and critiques of NGOs. In Carey, H. (ed), *Subcontracting Peace; the challenges of NGO peacebuilding*. Routledge, London, pp. 37-54.

REYNOLDS, R. 2016. Defining, designing for, and measuring “social constructivist digital literacy” development in learners: a proposed framework. *Educational Technology Research and Development*, vol. 64, no. 4, pp. 735-762.

RIDDER, H.-G. 2017. The theory contribution of case study research designs. *Business Research*, vol. 10, no. 2, pp. 281-305.

RITCHIE, J., LEWIS, J., NICHOLLS, C. M. & ORMSTON, R. 2013. *Qualitative research practice: A guide for social science students and researchers*, Sage, Thousand Oaks.

ROBERTSON, A. & SIBLEY, C. G. 2018. Research sampling: a pragmatic approach. *Advanced Research Methods for Applied Psychology*. Routledge, Abingdon.

RODRIGUEZ-DE-DIOS, I. & IGARTUA, J.-J. 2018. Skills of digital literacy to address the risks of interactive communication. In *Information and Technology Literacy: Concepts, Methodologies, Tools, and Applications*. IGI Global, pp. 621-632.

ROSS, K. & PADOVANI, C. 2015. Gender and Media in Times of Crises. In TRAPPEL, J., STEEMERS, J. & THOMASS, B. (eds.), *European Media in Crisis: Values, Risks and Policies*, Routledge, New York, Chapter 8.

ROSSER, S. 2006. Using the Lenses of Feminist Theories to Focus on Women and Technology. In FOX, M., JOHNSON, D. & ROSSER, S. (eds.), *Women, Gender, and Technology*. University of Illinois Press, Champaign, IL, pp. 13-46.

ROWLAND, J., 1997. *Questioning Empowerment; Working with women in Honduras*. Oxfam, Dublin.

ROWLANDS, J. 1999. A word of the times, but what does it mean? Empowerment in

the discourse and practice of development. In Afshar, H. (ed), *Women and empowerment; illustrations from the Third World*. Palgrave MacMillan, London, pp. 11-34.

RYBALKO, S., & SELTZER, T. 2010. Dialogic communication in 140 characters or less: How Fortune 500 companies engage stakeholders using Twitter. *Public Relations Review*, vol. 36, no. 4, pp. 336-341.

SAFFORD, K. & STINTON, J. 2016. Barriers to blended digital distance vocational learning for non-traditional students. *British Journal of Educational Technology*, vol. 47, no. 1, pp. 135-150.

SALEMINK, K., STRIJKER, D. & BOSWORTH, G. 2017. Rural development in the digital age: A systematic literature review on unequal ICT availability, adoption, and use in rural areas. *Journal of Rural Studies*, vol. 54, pp. 360-371.

SAM, S. 2017. Towards an empowerment framework for evaluating mobile phone use and impact in developing countries. *Telematics and Informatics*, vol. 34, no. 1, pp. 359-369.

SAMANTARAY, S. K. & ANANTH, P. 2018. Empowerment of Rural Women through Self Help Groups: A Socio-Economic Analysis. *Journal of KRISHI VIGYAN*, vol. 6, no. 2, pp. 84-87.

SANDBERG, F. 2016. Recognition and adult education: an incongruent opportunity. *Studies in Continuing Education*, vol. 38, no. 3, pp. 265-280.

SANDERS, M. & GEORGE, A. 2017. Viewing the changing world of educational technology from a different perspective: Present realities, past lessons, and future possibilities. *Education and Information Technologies*, vol. 22, no. 6, pp. 2915-2933.

SANDLIN, J. A. 2007. Netnography as a Consumer education research tool. *International Journal of Consumer Studies*, vol. 31, no. 3, pp. 288-294.

SANTOS, M. E. 2011. Human Capital and the Quality of Education in a Poverty Trap Model. *Oxford Development Studies*, vol. 39, no. 1, pp. 25-47.

SANUBI, F. A. & AKPOTU, N. E. 2015. The Nigeria Education System and Vision 20: 2020--A Critical Development Planning Perspective. *International Journal of Educational Administration and Policy Studies*, vol. 7, no. 2, pp. 26-38.

SAUNDERS, M., LEWIS, P. & THORNHILL, A. 2007. *Research methods for Business Students*, 4th ed. Pearson Prentice Hall, Harlow.

SCHEERDER, A., VAN DEURSEN, A. & VAN DIJK, J., 2017. Determinants of Internet skills, uses and outcomes. A systematic review of the second-and third-level digital divide. *Telematics and informatics*, vol. 34, no. 8, pp. 1607-1624.

SCHWERIN, E. W. 1995. *Mediation, citizen empowerment, and transformational politics*, Praeger, Westport, CT.

SEEBERG, V., BAILY, S., KHAN, A., ROSS, H., WANG, Y., SHAH, P. & WANG, L. 2017. Frictions that activate change: dynamics of global to local non-governmental organizations for female education and empowerment in China, India, and Pakistan. *Asia Pacific Journal of Education*, vol. 37, no. 2, pp. 232-247.

SEEDHOUSE, A., JOHNSON, R. & NEWBERY, R. 2016. Potholes and pitfalls: The impact of rural transport on female entrepreneurs in Nigeria. *Journal of transport geography*, vol. 54, pp. 140-147.

SELWYN, N. & FACER, K. 2014. The sociology of education and digital technology: past, present and future. *Oxford Review of Education*, vol. 40, no. 4, pp. 482-496.

SEN, A. 1997. *Resources, values, and development*, Harvard University Press, Cambridge, MA.

SEN, A., 1998. Human development and financial conservatism. *World development*, vol. 26, no. 4, pp.733-742.

SERDYUKOV, P. 2017. Innovation in education: what works, what doesn't, and what to do about it? *Journal of Research in Innovative Teaching & Learning*, vol. 10, no. 1, pp. 4-33.

SERRANO-CINCA, C., MUÑOZ-SORO, J. & BRUSCA, I. 2018. A Multivariate Study of Internet Use and the Digital Divide. *Social Science Quarterly*, vol. 99, no. 4, pp. 1409-1425.

SHABA, N. Y., J. OBANSA, S. A., MAGAJI, S. & YELWA, M. 2018. Analysis of The Relationship Between Income Inequality and Poverty Prevalence in Selected North Central States of Nigeria: 1991 – 2013. *Applied Economics and Finance*, vol. 5, no. 3, 22-33.

SHAMAKI, E. B. & DANIEL, S. G. 2015. Women Empowerment through Education in Some Selected Local Government Areas In Taraba State, Nigeria. *International Journal of Innovative Development and Policy Studies*, vol. 3, no. 3, pp. 37-43.

SHARAUNGA, S., MUDHARA, M. & BOGALE, A. 2019. Conceptualisation and Measurement of Women's Empowerment Revisited. *Journal of Human Development and Capabilities*, vol. 20, no. 1, pp. 1-25.

SHARMA, G. 2017. Pros and cons of different sampling techniques. *International Journal of Applied Research*, vol. 3, no. 7, pp. 749-752.

SHARPLES, M., TAYLOR, J. & VAVOULA, G. 2010. A Theory of Learning for the Mobile Age. In: BACHMAIR, B. (ed.) *Medienbildung in neuen Kulturräumen: Die deutschsprachige und britische Diskussion*. Wiesbaden: VS Verlag für Sozialwissenschaften, pp. 87-99.

SHEIKH, M. A., ASHIQ, A., MEHAR, M. R., HASAN, A. & KHALID, M. 2018. Impact of Work and Home Demands on Work Life Balance: Mediating Role of Work Family Conflicts. *Pyrex Journal of Business and Finance Management Research*, vol. 4 no. 5, pp. 48-57.

SHETTY, S., 1992. Development projects in Assessing empowering. *New Delhi society for participatory Research in Asia*: vol. 3.

SHONOLA, S. A. & JOY, M. 2014. Barriers to m-learning in higher education institutions in Nigeria. Proceedings of 7th International Conference of Education, Research and

Innovation (ICERI2014), Seville, Spain. pp. 3324-32.

SHONOLA, S. A., JOY, M. S., OYELERE, S. S. & SUHONEN, J. 2016. The impact of mobile devices for learning in higher education institutions: Nigerian universities case study. *International Journal of Modern Education and Computer Science*, vol. 8, no. 8, pp. 43-50.

SHOPOVA, T. 2014. Digital literacy of students and its improvement at the university. *Journal on Efficiency and Responsibility in Education and Science*, vol. 7, no. 2, pp. 26-32.

SIKIVAHAN, N. & PONNIAH, V. 2018. A Conceptual Perspective on the Impact of Microfinance. *International Journal of Applied Engineering Research*, vol. 13, no. 5, pp. 2701-2705.

SINGH, S. 2017. Bridging the gender digital divide in developing countries. *Journal of Children and Media*, vol. 11, no. 2, pp. 245-247.

Social Media Week (SMW) Lagos. 2017. Using Technology and Social media to counter violence against women and girls. A round table discussion at the social media week Lagos 2017.

SMITH, D. J. 2017. *To be a man is not a one-day job: Masculinity, money, and intimacy in Nigeria*, University of Chicago Press, Chicago.

SNAPE, D. & SPENCER, L. 2003. The foundations of qualitative research. Qualitative research practice: A guide for social science students and researchers. In Ritchie, J. & Lewis, J. (Ed.). *Qualitative Research Practice*. Sage Publications, London, pp. 1-23.

SOHAIL, M. 2014. Women Empowerment and Economic Development-An Exploratory Study in Pakistan. *Developing Country Studies*, vol. 4, no. 9, pp. 163-170.

SOLOMON, B.B., 1987. Empowerment: Social work in oppressed communities. *Journal of Social Work Practice*, vol. 2, no. 4, pp. 79-91.

SPOLANDER, G., ENGELBRECHT, L., MARTIN, L., STRYDOM, M., PERVOVA, I.,

MARJANEN, P., TANI, P., SICORA, A. & ADAIKALAM, F. 2014. The implications of neoliberalism for social work: Reflections from a six-country international research collaboration. *International Social Work*, vol. 57, no. 4, pp. 301-312.

SPRADLEY, J. P. 2016. *The ethnographic interview*, Waveland Press, Long Grove, IL.

SPRADLEY, J. P. 2016. *Participant observation*, Waveland Press, Long Grove, IL.

STACKI, S. L. & MONKMAN, K. 2003. Change through empowerment processes: Women's stories from South Asia and Latin America. *Compare: A Journal of Comparative and International Education*, vol. 33, no. 2, pp. 173-189.

STAUDT, K. 2018. Gender mainstreaming: Conceptual links to institutional machineries. In Rai, S. (Ed.), *Mainstreaming gender, democratizing the state?* Manchester University Press, Manchester, pp. 44-66.

STEPHEN, M. R. 2016. 'Investigating the role of Human Resource Development (HRD) policy formulation, implementation and regulation of academic staff in two case study Nigerian Polytechnic institutions'. PhD Thesis, University of Salford.

STEWART, F. 2016. *Technology and underdevelopment*, Palgrave Macmillan, London.

STILLER, K. D. & KÖSTER, A. 2016. Learner Attrition in an Advanced Vocational Online Training: The Role of Computer Attitude, Computer Anxiety, and Online Learning Experience. *European Journal of Open, Distance and E-Learning*, vol. 19, no. 2, pp. 1-14.

STROMQUIST, N.P., 1995. Romancing the state: Gender and power in education. *Comparative education review*, vol. 39, no. 4, pp. 423-454.

STROMQUIST, N.P., 2009. Literacy and empowerment: A contribution to the debate. *Background study commissioned in the framework of the United Nations Literacy Decade*. 2009/ED/BAS/BLE/PI/1

STROMQUIST, N. P. 2015. Women's Empowerment and Education: linking knowledge to transformative action. *European Journal of Education*, vol. 50, no. 3, pp. 307-324.

- STRONGE, J. H. 2018. *Qualities of effective teachers*, ASCD, Alexandria, VA.
- STRUCKMANN, C. 2018. A postcolonial feminist critique of the 2030 Agenda for Sustainable Development: A South African application. *Agenda*, vol. 32, no. 1, pp. 12-24.
- STUART, S., GÉNY, L. R. & ABDULKADRI, A. 2018. Advancing the economic empowerment and autonomy of women in the Caribbean through the 2030 Agenda for Sustainable Development. Economic Commission for Latin America and the Caribbean. *ECLAC Studies and Perspectives Series. The Caribbean*, no. 60, pp. 1-49.
- SULAIMAN, S., HUSSIN, S. & AMIR, Z. 2018. Communication Strategies among Tertiary Students in MLearning. *International Journal of Engineering & Technology*, vol. 7, no. 2.29, pp. 655-659.
- SUN, P.-C., TSAI, R. J., FINGER, G., CHEN, Y.-Y. & YEH, D. 2008. What drives a successful eLearning? An empirical investigation of the critical factors influencing learner satisfaction. *Computers & Education*, vol. 50 no. 4, pp. 1183-1202.
- SUNDSTRÖM, A., PAXTON, P., WANG, Y.T. & LINDBERG, S.I., 2017. Women's political empowerment: A new global index, 1900–2012. *World Development*, vol. 94, no. C, pp. 321-335.
- SUTHERLAND, K. A. 2018. Work-Life Balance: Exploring the Myths and Realities of Family, Home, Work, and Life Pressures for Early Career Academics. *Early Career Academics in New Zealand: Challenges and Prospects in Comparative Perspective*. Springer, Cham, pp. 116-136.
- SVENINGSSON, M., 2004. Ethics in Internet ethnography. In SVENINGSSON, M. (ed) *Readings in virtual research ethics: Issues and controversies*, IGI Global, pp. 45-61.
- TABACARU, C. 2018. IMPACT OF NON-FORMAL EDUCATION ON THE EFFICACY OF SCHOOL LEARNING. *Studia Universitatis Moldaviae-Științe ale Educației*, vol.9, no. 119, pp. 229-233.
- TAYO, O., THOMPSON, R. & THOMPSON, E. 2016. Impact of the Digital Divide on

Computer Use and Internet Access on the Poor in Nigeria. *Journal of Education and Learning*, vol. 5 no. 1, pp. 1-6.

TCHAMYOU, V. S. 2018. Education, lifelong learning, inequality and financial access: evidence from African countries. *Journal of the Academy of Social Sciences*, vol. 15, no. 1, pp. 7-25.

THANH, N. C. & THANH, T. 2015. The interconnection between interpretivist paradigm and qualitative methods in education. *American Journal of Educational Science*, vol. 1, no. 2, pp. 24-27.

THAPAR-BJÖRKERT, S., SAMELIUS, L. & SANGHERA, G. S. 2016. Exploring symbolic violence in the everyday: misrecognition, condescension, consent and complicity. *Feminist review*, vol. 112, no. 1, pp. 144-162.

THYAGHARAJAN, K. & NAYAK, R. 2007. Adaptive content creation for personalized eLearning using web services. *Journal of Applied Sciences Research*, vol. 3, no. 9, pp. 828-836.

TIJJANI, A., ANAETO, F. & EMERHIRHI, E. 2017. Analysis of the Roles of Information and Communications Technologies in Rural Women Farmers' Empowerment in Rivers State, Nigeria. *Library Philosophy & Practice* (e-journal). Article 1498. Viewed on 30 January 2019. <http://digitalcommons.unl.edu/libphilprac/1498>

TOBIAS, S. 2018. *Faces of feminism: An activist's reflections on the women's movement*, Routledge, New York.

TOLMAN, D. L., DAVIS, B. R. & BOWMAN, C. P. 2016. "That's just how it is" A gendered analysis of masculinity and femininity ideologies in adolescent girls' and boys' heterosexual relationships. *Journal of adolescent research*, vol. 31, no. 1, pp. 3-31.

TORTAJADA, C. 2016. Nongovernmental Organizations and Influence on Global Public Policy. *Asia & the Pacific Policy Studies*, vol. 3, no. 2, pp. 266-274.

TRIPATHI, K. A. & SINGH, S. 2018. Analysis of barriers to women entrepreneurship through ISM and MICMAC: A case of Indian MSMEs. *Journal of Enterprising*

Communities: People and Places in the Global Economy, vol. 12, no. 3, pp. 346-373.

TUSTIN, D.H., GOETZ, M. & BASSON, A.H., 2012. Digital divide and inequality among digital natives: A South African perspective. *African Journal of Business Management*, vol. 6, no. 31, pp. 9140.

TUIKKA, A.-M., NGUYEN, C. & KIMPPA, K. K. 2017. Ethical questions related to using netnography as research method. *ORBIT Journal*, vol. 1, no. 2.

<https://doi.org/10.29297/orbit.v1i2.501>

UDEAJA, E. & OBI, K. 2015. Determinants of Economic Growth in Nigeria: Evidence from Error Correction Model Approach. *Developing Country Studies*, vol. 9, no. 5, pp. 27-42.

UMEMEZIA, E & OSIFO, S. J. 2018. Microfinance and Female Entrepreneurship in Nigeria. *DBA Africa Management Review*, vol. 8, no. 1, pp. 34-43.

UNESCO 2014. Teaching and learning: achieving quality for all, viewed 17 December 2018 <<https://en.unesco.org/gem-report/report/2014/teaching-and-learning-achieving-quality-all>>

UNESCO 2017. How digital learning is improving livelihoods in Nigeria, viewed 17 December 2018 <<https://en.unesco.org/news/how-digital-learning-improving-livelihoods-nigeria>>

UNESCO 2010. Non-formal education, viewed 30 June 2018.

<<http://uis.unesco.org/node/334726>>

UNESCO 2006. Understandings of Literacy, viewed 30 June 2018 <http://www.unesco.org/education/GMR2006/full/chapt6_eng.pdf>

UNESCO 2019. Education for change: a ministerial strategic plan (2018-2022), viewed 22 April 2020 <<https://planipolis.iiep.unesco.org/en/2019/education-change-ministerial-strategic-plan-2018-2022-6719>>

UNESCO 2018. Nigeria: Education and Literacy, viewed 22 April 2020

<<http://uis.unesco.org/en/country/ng>>

UNICEF 2018. The Challenge: One in every five of the world's out-of-school children is in Nigeria, viewed 12 January 2019 <https://www.unicef.org/nigeria/education>

URAMA, E.N., 2019. The Values and Usefulness of Same-Sex Marriages among the Females in Igbo Culture in the Continuity of Lineage or Posterity. *SAGE Open*, vol. 9, no. 2, <https://journals.sagepub.com/doi/full/10.1177/2158244019850037>

USMAN, A. E. A. 2018. Assessment of Gender and Interest in Mathematics Achievement in Keffi Local Government Area of Nasarawa State, Nigeria. *International Journal of Operational Research in Management, Social Sciences and Education*, vol. 4, no. 1, pp. 127-140.

UZOARU, O. C. & FESTUS, M. O. 2018. Environmental adult education for preventing Lassa fever outbreak in Nigeria. *International Journal of Health and Psychology Research*, vol. 6, no. 3, pp. 1-12

VALK, J.-H., RASHID, A. T. & ELDER, L. 2010. Using mobile phones to improve educational outcomes: An analysis of evidence from Asia. *The International Review of Research in Open and Distributed Learning*, vol. 11, no. 11, pp. 117-140.

VAN DER TUIN, I. 2016. Feminist Epistemology. In Naples, N. (ed). *The Wiley Blackwell Encyclopedia of Gender and Sexuality Studies*, Wiley Blackwell, Oxford, pp. 1-3. <https://doi.org/10.1002/9781118663219.wbegss042>

VAN DEURSEN, A. J. & VAN DIJK, J. A. 2019. The first-level digital divide shifts from inequalities in physical access to inequalities in material access. *New Media & Society*, vol. 21, no. 2, pp. 354-375.

VAN EERDEWIJK, A., WONG, F., VAAST, C., NEWTON, J., TYSZLER, M. & PENNINGTON, A. 2017. White paper: A conceptual model on women and girls' empowerment. Royal Tropical Institute (KIT), Amsterdam.

VAN VOORHIS, R. M. 2017. Feminist theories and social work practice. In Greene, R.

(ed), *Human behavior theory and social work practice*, 3rd ed. Routledge, New York.
Chapter 10.

VEEN, R. V. D. & PREECE, J. 2005. Poverty reduction and adult education: Beyond basic education. *International Journal of Lifelong Education*, vol. 24, no. 5, pp. 381-391.

VEHOVAR, V., TOEPOEL, V. & STEINMETZ, S. 2016. Non-probability sampling. In Wolf, C., Joye, D., Smith, T. & Fu, Y.-C. (eds.) *The SAGE Handbook of Survey Methodology*, Sage, London, pp. 329-345.

VENKATESH, V., SHAW, J. D., SYKES, T. A., WAMBA, S. F. & MACHARIA, M. 2017. Networks, Technology, and Entrepreneurship: A Field Quasi-experiment among Women in Rural India. *Academy of Management Journal*, vol. 60, no. 5, pp. 1709-1740.

VINSON, L.T., 2017. *Religion, violence, and local power-sharing in Nigeria*. Cambridge University Press, Cambridge.

WAHID, A., AHMAD, M. S., ABU TALIB, N. B., SHAH, I. A., TAHIR, M., JAN, F. A. & SALEEM, M. Q. 2017. Barriers to empowerment: Assessment of community-led local development organizations in Pakistan. *Renewable and Sustainable Energy Reviews*, vol. 74, pp. 1361-1370.

WAISWA, M. & PHELPS, M. 2017. 'Empowering Women: A case study of women's participation in political processes in Nakuru County'. Masters Capstone Project, School of Public Affairs, University of Minnesota.

WAJCMAN, J. 2010. Feminist theories of technology. *Cambridge journal of economics*, vol. 34, no. 1, pp. 143-152.

WANG, K. H., CHEN, G. & CHEN, H.-G. 2017. A model of technology adoption by older adults. *Social Behavior and Personality: an international journal*, no. 45, pp. 563-572.

WASSERMAN, H. 2017. African histories of the Internet. *Internet Histories*, vol. 1, no. 1-2, pp. 129-137.

WEIDENSTEDT, L., 2016. Empowerment gone bad: Communicative consequences of

power transfers. *Socius, Sociological Research for a Dynamic World*, vol. 2, pp. 1–11.
doi: 10.1177/2378023116672869..

WELLARD, K. & COPESTAKE, J. G. 1993. *Non-governmental organizations and the state in Africa: Rethinking roles in sustainable agricultural development*, Routledge, London.

WILLIAMS, A., BECKY, C. M. & THEOPHILUS, A. T. 2018. Challenges of women in technical and vocational education: A case study of federal college of education (technical), Gusau. *International Journal of Vocational and Technical Education*, vol. 10, no. 1, pp. 7-13.

WILSON, K. 2015. Towards a Radical Re-appropriation: Gender, Development and Neoliberal Feminism. *Development and Change*, vol. 6, no. 4, pp. 803-832.

WILSON, V., 2016. Research methods: sampling. *Evidence Based Library and Information Practice*, vol. 11, no. 1, pp. 69-71.

WLODKOWSKI, R. J. & GINSBERG, M. B. 2017. *Enhancing adult motivation to learn: A comprehensive guide for teaching all adults*, 4th ed. Jossey-Bass, San Francisco.

WRIGHT, S. & OKOLO, J. E. 2018. Nigeria: Aspirations of Regional Power. In Wright, S. (ed), *African Foreign Policies*. Routledge, New York, Chapter 7.

WU, W.H., WU, Y.C.J., CHEN, C.Y., KAO, H.Y., LIN, C.H. & HUANG, S.H., 2012. Review of trends from mobile learning studies: A meta-analysis. *Computers & Education*, vol. 59, no. 2, pp. 817-827.

YARO, I., ARSHAD, R. & SALLEH, D. 2016. Education stakeholder's constraints in policy decisions for effective policy implementation in Nigeria. *British Journal of Education, Society and Behavioral Science*, vol. 14, no. 1, pp. 1-12.

YI, X., RIBBENS, B., FU, L. & CHENG, W., 2015. Variation in career and workplace attitudes by generation, gender, and culture differences in career perceptions in the United States and China. *Employee Relations*, vol. 37, no. 1, pp. 66-82.

YILDIZ, M. 2016. Transforming Higher Education through Transdisciplinary and

Inclusive Curriculum. In G. Chamblee & L. Langub (eds.), *Proceedings of Society for Information Technology & Teacher Education International Conference*, Savannah, GA2016. Association for the Advancement of Computing in Education (AACE), pp. 2442-2449.

YUKTIRAT, C., SINDHUPHAK, A. & KIDDEE, K., 2018. M-learning for the Art of Drawing: Informal Learning for a Digital Age. *International Journal of Interactive Mobile Technologies*, vol. 12, no. 5, pp. 52-168.

ZAFAR, H. 2016. 'Empowering Women: NGOs Project Impacts in Baluchistan-Pakistan'. PhD. Thesis, Western Sydney University.

ZAKUAN, U. A. A. & HASSAN, K. 2016. Women's Economic Empowerment in the Developing Countries: Reengineering Patriarchy? In Zakaria, N., Abdul-Talib, A. & Osman, N. *Handbook of Research on Impacts of International Business and Political Affairs on the Global Economy*. IGI Global, pp. 242-256.

ZHENG, B., NIIYA, M. & WARSCHAUER, M., 2015. Wikis and collaborative learning in higher education. *Technology, Pedagogy and Education*, vol. 24, no. 3, pp. 357-374.

ZULKARNAIN, N., ANSHARI, M. & ALMUNAWAR, M.N., 2017. Big data and mobile learning in generating pervasive knowledge. *Proceedings of 2017 International Conference on Information Management and Technology (ICIMTech 2017)*, pp. 177-180.

ZWICK, D. & DHOLAKIA, N., 2004. Consumer subjectivity in the Age of Internet: the radical concept of marketing control through customer relationship management. *Information and Organization*, vol. 14, no. 3, pp. 211-236.

