

## **COPYRIGHT STATEMENT**

This copy of the thesis has been supplied under the circumstance that anyone who consults it is agreed to recognise that its copyright rests with its author and that no quotation from the thesis and no information derived from it may be published without the author's prior consent.



**UNIVERSITY OF  
PLYMOUTH**

**COMMUNICATION TECHNOLOGY AND GOVERNANCE: THE CASE OF NIGERIA**

**BY**

**KOSMOS EBENEZER AKANDE-ALASOKA**

**A THESIS SUBMITTED TO THE UNIVERSITY OF PLYMOUTH**

**in partial fulfilment for the degree of**

**DOCTOR OF PUBLIC ADMINISTRATION**

**PLYMOUTH BUSINESS SCHOOL**

**UNIVERSITY OF PLYMOUTH**

**2017**

## **DEDICATION**

**To God the giver of life**

**To my family: Grace Funmilola Akande-Alasoka (wife), Karosibina Rachel Akande-Alasoka (daughter) and Oseka Daniel Akande-Alasoka (son).**

**To my late parents Oba Festus Akande-Alasoka and Mrs Rachel Akande-Alasoka**

**KOSMOS EBENEZER AKANDE-ALASOKA**

**COMMUNICATION TECHNOLOGY AND GOVERNANCE: THE CASE OF  
NIGERIA**

**ABSTRACT**

Considering its level of sophistication and complexity communication can be understood as a fundamental characteristic of humankind. Since early times humanity has continued to devise novel techniques and tools to enhance the process of communication and governance procedures.

This study explores and analyses developments in internet and communication technology (ICT) in relation to governance procedures in Nigeria. It looks at the rapid expansion of ICT and examines levels of assimilation by the population. This study includes an investigation of the challenges and impediments encountered in the process of the integration of ICT into the fabric of Nigeria's governance. The data and information gained about ICT is then employed towards the development of a theoretical framework to identify and assess good governance.

A mixed method and hermeneutical approach were used in the collection and analysis of data. A survey questionnaire was distributed to 100 selected professionals with varied backgrounds as users or experts regarding communication. Those chosen to receive questionnaires were members of the public and individuals from professional and stakeholder groups in the communication industry. Survey questions addressed the frequency of use of ICT in Nigeria in commonly-cited activities as well as areas of success where future improvement may be identified. The questionnaires provided an overview of the benefits of ICT regarding the developments and

challenges confronting the communication industry and governance. This overview formed the basis for semi-structured interview questions and focus group sessions.

This thesis demonstrates the interconnectivity between communication and governance and how triangulation and hermeneutics were combined to study ICT use in the context of Nigeria. The results also indicated that in certain population groups and in some economic sectors of government ICT use is rapidly growing. However, the study and theoretical framework illustrate that many opportunities and challenges remain for optimal use of ICT for Nigerian governance procedures.

## Table of Contents

DEDICATION .....	III
ABSTRACT .....	IV
LIST OF TABLES .....	XIV
LIST OF FIGURES AND CHARTS .....	XV
ACKNOWLEDGEMENTS .....	XVI
AUTHOR'S DECLARATION .....	XVIII
A LIST OF ACRONYMS/ABBREVIATIONS .....	XIX
CHAPTER ONE-INTRODUCTION.....	1
1.1 Background of the Study .....	1
1.2 Identifying Research Problem .....	2
1.3 Research Questions .....	3
1.4 Objectives of the Study .....	4
1.5 Subject Area .....	5
1.6 An Overview of the Thesis.....	6
Part I: Literature Review .....	6
Part II: Research Methodology and Research Theories .....	7
Part III: Data Analysis and Theoretical Model Development .....	8
PART I : LITERATURE REVIEW .....	10
CHAPTER TWO – PHILOSOPHICAL AND THEORETICAL LITERATURE REVIEW .....	10
2.1 Introduction .....	10
2.2 Overview: Communication Theory .....	11
2.3 Philosophical Literature Review .....	12

2.3.1 Socrates, Plato, and Aristotle: Views on oratory, rhetoric, and truth .....	13
2.3.2 Cicero, Quintillian, Petrarch, Machiavelli, Kant, and Bentham: The power of rhetoric, eloquence and governance .....	16
2.3.3 Weber – Theory of Bureaucracy .....	21
2.3.4 Foucault – critical theory, history and discourse .....	24
2.4.Theoretical Literature Review .....	27
2.4.1. Communication: definition and characteristics .....	29
2.4.2. Communication theory: general characteristics .....	31
2.4.3 Fundamental theories on communication .....	34
2.4.4 Structuralism and Post Structuralism .....	36
2.4. 6 Governance .....	42
2,4.7 Communication and Governance .....	43
2.4.8 Agency Theory .....	44
2.4.9 Development and communications technology .....	46
2.4.10 Economic factors and communications technology .....	47
2.4.11 Culture and Communications .....	48
2.5 Summary .....	52
CHAPTER THREE-CASE STUDY LITERATURE REVIEW .....	54
3.1 Introduction .....	54
3.2 Communication and Cultural Effects in Nigeria.....	54
3.3.1 ICT for Informing Citizens.....	58
3.4 Global Liberalisation of Communication.....	60
3.5 ICT impacting the developing world .....	61

3.6 ICT in sub-Saharan Africa .....	63
3.7 Information and Communication Technology (ICT) and Impacts in Nigeria .....	64
3.7.1 Global Partnership for Development.....	66
3.7.2 Network operators .....	66
3.7.3 Measures to connect Nigeria to Broadband Infrastructure.....	66
3.7.4 Networks and partnerships .....	68
3.8 Summary .....	68
PART II : RESEARCH METHOD AND METHODOLOGY.....	70
CHAPTER FOUR: RESEARCH METHOD AND METHODOLOGY .....	70
4.1 Introduction .....	70
4.1.1 Qualitative and Quantitative Research Design.....	71
4.1.2 Research Design: Explorative – Descriptive, Research Design .....	73
4.1.3 Paradigms of Inquiry .....	73
4.1.4 The notions of reality, knowledge, and truth.....	74
4.1.5 Subjectivity and Objectivity .....	76
4.1.6 Phenomenology .....	76
4.1.7 Methodologies in relation to paradigms of inquiry .....	77
4.1.8 Critical Theory.....	82
4.2. Methodology .....	84
4.2.1.Hermeneutics .....	85
4.2.2 Ethnography.....	90
4.3 Methods.....	93
4.3.1 Survey or questionnaires .....	94



4.3.2 Interviews .....	94
4.3.3 Focus groups.....	95
4.3.4 Documentary Materials .....	97
4.4. Summary .....	97
CHAPTER FIVE: THEORETICAL MODELS OF ICT, WORKING DEFINITIONS, AND THEORETICAL FRAMEWORK.....	99
5.1 Introduction .....	99
5.2 Key Definitions .....	99
5.3 Theoretical Model .....	100
5.3.1 ICT Political Model.....	100
5.3.2 A Simple Model of Democratic Politics.....	101
5.3.3 ICT for Social Economic Development .....	103
5.3.4 ICT and Culture .....	105
5.3.5 Agriculture.....	106
5.3.6 Education .....	107
5.3.7 Health.....	109
5.3.8 ICT in Security and Crime.....	111
5. 4 Communication and Governance: Working Definitions.....	114
5. 5 Summary .....	117
CHAPTER SIX: DATA COLLECTION PROCESSES.....	119
6:1 Introduction.....	119
6.2 Participant Sample Selection.....	121
6.3 Data Collection Method .....	123

6.3.1 Survey Questionnaires (Likert scale) .....	125
6.3.2 Interviews .....	126
6.3.3 Focus group discussion.....	127
6.3.4 Documentary Materials .....	128
6.4 Data Accessibility and Challenges .....	130
6.5 Research Ethics .....	131
6.7 Data Analysis and Coding.....	135
6.8 Research procedure The research study involved the following steps, in the sequence listed below-.....	137
6. 9 Summary .....	138
PART III: CHAPTERS SEVEN, EIGHT, NINE: DATA ANALYSES .....	139
CHAPTER SEVEN - QUANTITATIVE ANALYSIS OF THE SURVEY WITH ANALYSIS OF SURVEY RESULTS AND THE LIKERT SCALE QUESTIONNAIRE.....	139
7.1 Introduction .....	139
7.2 Summary of Questionnaire Findings .....	139
7.3 Likert Scale Responses.....	146
CHAPTER EIGHT: HERMENEUTICS AND DIALECTICS ANALYSIS.....	156
8.1 Introduction .....	156
8.2 Dialectics process and hermeneutics.....	156
8.3 A dialectical reflection on global communication evolution .....	158
8.4 Truth-tracking potential of political deliberation .....	162
8.5 The Public Sphere .....	162
8.6 The Theory of Communicative Action .....	166
8.7 Summary .....	168

CHAPTER NINE- ETHNOGRAPHIC ANALYSIS OF THE SEMI-STRUCTURED INTERVIEW AND THE FOCUS GROUP DISCUSSION .....	170
9.1 Introduction .....	170
9.1.1 Communication : Information dissemination now easy, faster, and timely .....	174
9.1.2 Governance in Nigeria (platform for online political activity and electronic-government).....	176
9.1.3 Platform for online political activity .....	178
9.1.4 Electronic Government.....	180
9.1.5 Security and government fight against crime .....	181
9.1.6 Socio-economic development.....	181
9.1.7 Agricultural activities .....	184
9.1.8 Education Services .....	186
9.1.9 Health services.....	188
9.1.10 Banking services.....	188
9.2 Challenges and Problems in ICT Services .....	190
9.2.1 Malware, spyware and Internet fraud .....	191
9.2.2 Network services .....	192
9.2.3 Cost of ICT hardware and services.....	192
9.2.4 Power supply .....	193
9.2.5. Addiction to social networking.....	193
9.2.6 Cultural and religious hindrances .....	194
9.2.7 Education and skills.....	195
9.2.8 Bureaucracy and bad practices .....	196
9.3 Recommendations .....	196

9.3.1 Fighting malware and viruses .....	196
9.3.2 Tax reduction .....	197
9.3.5 Adequate capacity building .....	198
9.3.6 Government creation of enabling environment .....	199
9.3.7 Improve power supply and distribution.....	200
9.3.8 Policy implementation on ICT .....	200
9.3.9 Expansion of services to rural areas .....	201
9.3.10 Efficient regulatory service .....	202
9.4 Summary .....	204
CHAPTER TEN-DISCUSSION OF FINDINGS .....	206
10.1 Introduction .....	206
10.2 Emerging Theoretical Models.....	206
10. 2.1 Communication made dissemination of messages easy .....	206
10. 3 Summary .....	211
PART IV: CHAPTER ELEVEN: CONCLUSIONS, IMPLICATIONS FOR THEORY AND PRACTICE, LIMITATIONS, CONTRIBUTIONS, AND SUGGESTIONS FOR FUTURE RESEARCH Conclusions:.....	212
11.1 Introduction .....	212
11. 2 Theories and Practice .....	216
11. 3 Limitations .....	217
11.4 Contribution to Knowledge and Additions to Existing Literature .....	218
11. 5 Recommendations for Future Research and Policy .....	220
List of References .....	223
APPENDIX 3: LIKERT SCALE QUESTIONNAIRE AND ANALYSIS .....	263

APPENDIX 4: INFORMATION ABOUT THE SEMISTRUCTURED INTERVIEW .....	269
APPENDIX 5: RELATIONSHIP BETWEEN SURVEY QUESTIONS AND SEMI- STRUCTURED INTERVIEW QUESTION FORMATION .....	271
APPENDIX 6: INFORMATION ABOUT THE PARTICIPATION OF THE FOCUS GROUP DISCUSSION .....	272

## **LIST OF TABLES**

Table 4.1 Paradigm of Inquiry

Table 4.2 Paradigm of Inquiry for the research

Table 4.3 The distinction between methods and techniques

Table 6.1 Data Collection Scheme

Table 9.1 Degree of respondents using Internet enabled mobile device for social network

Table 9.2 Degree of respondents using Internet enabled mobile device for reading contents such as e-book, articles etc

Table 9.3 Degree of respondents using ICT in getting news alerts

Table 9.4 Degree of respondents using ICT in accessing emails

Table 9.5 Degree of respondents using ICT for texting messages

Table 9.6 Degree of respondents using ICT in searching for information

Table 9.7 Degree of respondents using ICT in getting directions

Table 9.8 Degree of respondents using ICT in uploading content

Table 9.9 Degree of respondents using ICT in playing games

Table 9.10 Degree of respondents using ICT for listening to music or watching video

Table 9.11 Degree of respondents using ICT for participation in lectures

Table 9.12 Degree of usage of internet-enabled mobile device for different activities in Nigeria

Table 9.13 Benefits of ICT usage in Nigeria

Table 9.14 Problems of using application and/ or Internet on communication devices in Nigeria

Table 9.15 Problems/challenges facing the communication industry in Nigeria

Table 9.16 Proffered solutions to the identified problems of communication in Nigeria

Table 9.17 (interview questions)

## **LIST OF FIGURES AND CHARTS**

Figure 6.1 Data Collection Flowchart

Figure 7.1 Habermas dialectics process and hermeneutics analysis of communication evolution.

Figure 7.2 Communication Technology Time

Figure 7. 3 Definition of the semi-structure and focus group data gathered on communication (ICT) products and services

Figure 7.4 Current framework for ICT regulation in Nigeria

Figure 10.1 Stylised political model

Figure 10.2. E.government made communication better.

Figure 10.3 Changing Information and Communication Technology for Development (ICT4D) issues overtime.

Figure 10.4 ICT and culture

Figure:10.5 ICT and Agriculture

Figure 10.6 Importance of ICT integration in education

Figure 10.7 ICT in learning

Figure 10.8 Health Information sharing through SymConnect Vision

Figure 10.9 ICT health hazards

Figure 10.10 Cybercrime top countries

Figure 10.11 ICT and good governance model: Achieving good governance is a function of efficient ICT services.

### **Charts**

Chart 7.1 Summary: Frequency of usage of internet-enabled mobile device for different activities in Nigeria as a proportion of responses.

## ACKNOWLEDGEMENTS

I give all honour and glory to the Almighty God for His mercies and His loving kindness that endures forever. Him alone is worthy of all praises.

Mere acknowledgement is not sufficient to express my gratitude to everyone that has contributed through advice, encouragement and support all through this Doctoral journey. My sincere thanks first go to my Director of Studies, Professor Kerry E. Howell, for his ardent support, valuable insights and guidance all through the research period. Without his critical feedback and advice, the task would have been overwhelming.

I cannot appreciate any less the cooperation and support of the supervisory team at the International University in Geneva, Switzerland: Mr Eric Willumsen President (IUG), Dr Surabhi Aggarwal (Academic Dean) and Dr Ioanna Liouka (Department Head, Bachelor's programs). Their valuable contributions toward the completion of this research work, are invaluable and very commendable. Thank you a million.

I appreciate the valuable support, and contributory observations, fruitful suggestions and opinions expressed by other academic and non-academic staff of the Plymouth University and the International University in Geneva, (IUG), Switzerland and research colleagues during symposia organised in the course of the study. The experiences gained from the events were treasured.

I would like to sincerely express my appreciation to the managements of the Federal Ministry of Information and Youth Development, (FMIYD), Federal Radio Corporation of Nigeria (FRCN), Federal Ministry of Communication Technology(FMCT), Nigerian Communications Commission (NCC), News Agency of Nigeria (NAN), National Broadcasting Commission (NBC), Nigeria Television Authority (NTA), and stakeholders for participating and providing useful information



during the investigative stage of the study. I would like to thank Dr Fred Yamoah and Dr Jonathan Lean for their participation and challenging questions during the viva (oral examination).

I owe a debt of gratitude to my brother Israel Bodunrin Akande-Alasoka for all round supports and encouragements throughout the programme. I cannot forget the kind and valuable contributions of brother Gbenga Olowoye, Philp Nyam and Olusegun Samuel to this project. I appreciate you all. I thank my friend, Balogun George and Mrs Comfort Ajiboye of the Federal Ministry of Information and Youth Development for all their support during the data collection stage in Abuja. I cannot but appreciae my senoir colleagues at the World Meteorological Organization (WMO), Dr Yinka Adebayo and Dr Joseph Romanus Mukabana for their inspiration, encouragement and support throughout the various stages of the research. May God bless and increase you all in Jesus name.

## **AUTHOR’S DECLARATION**

At no time during the registration for the degree of Doctor of Public Administration has the author been registered for any other University award without prior agreement of the Doctoral College Quality Sub-Committee.

Work submitted for this research degree at the University of Plymouth has not formed part of any other degree either at the University of Plymouth or at another establishment.

During the course of study, the following activities were undertaken in relation to the programme:

I submitted and presented a paper titled “Communication and Governance in sub-Saharan Africa” at the 2015 PAC Conference Liverpool University 4th Public Management and Administration Postgraduate Conference that took place in Liverpool, 2015.

I presented a paper on my Thesis Proposal titled Communication and Governance: The Case of Nigeria” during the joint International University in Geneva and the Plymouth University graduate students Symposium held at International University in Geneva, in October 2015.

I attended Research Students Skills Development Programmes that were held at the Plymouth University-Project Management covering the following - How to avoid plagiarism, Oratory and Persuasive communication, Intensive General Teaching Associates course, Postgraduate Certificate in Academic Practice (PGCAP), and Word: Structuring your Thesis, Giving and receiving feedback and presenting a conference paper.

**Word count of the main body of thesis: 69134**

**Signed .....**

**Date .....**

## **A LIST OF ACRONYMS/ABBREVIATIONS**

**AFAI** - Alliance for Affordable Internet  
**AGIS** - Abuja Geographic Information Systems  
**APCN** - Advertising Practitioners Council of Nigeria  
**ATM** - Automated Teller Machine  
**CME**- Computer-Mediated Environment.  
**DSS** - Department of State Services  
**FMCT** - Federal Ministry of Communication Technology  
**FMIYD**- Federal Ministry of Information and Youth Development  
**FRCN** - Federal Radio Corporation of Nigeria  
**ICTs** - Information Communication Technologies  
**IDRC**-International Development Research Centre  
**MTN** - Mobile Telephone Networks  
**NAN** - News Agency of Nigeria  
**NASRDA** - National Space Research and Development Agency  
**NBC** - National Broadcasting Commission  
**NBC** - Nigeria Broacasting Corporation  
**NCC** - Nigerian Communications Commission  
**NFC** - Nigerian Film Corporation  
**NFVCB**- National Film & Video Board  
**NIPOST**-Nigerian Postal Service  
**NIPR** - Nigerian Institute of Public Relations  
**NITDA**-National Information Technology Development Agency  
**NITEL**-Nigerian Telecommunications Limited  
**NPC** - Nigerian Press Council  
**NTA** - Nigeria Television Authority

**P&T** - Post and Telecommunication

**PWD** - Public Works Department

**SSS** - State Security Service

**TV** - Television

**UNCSTD** - United Nations Commission on Science and Technology Development

**VON** - Voice of Nigeria

**MoU** - Memorandum of Understanding

**WWW**- World Wide Web

# **CHAPTER ONE-INTRODUCTION**

## **1.1 Background of the Study**

Organisations and individual have displayed a significant level of research interest across the globe in information and communication technologies (ICTs), because of their relevance to the contemporary socio-economic global environment. According to Crede and Mansell (1998), ICTs remain a pivotal aspect for sustainable development in developing countries. These multi-dimensional transformations have influenced almost all aspects of life from economics, education, communication, to areas such as travel. Thioune (2003) argues that in the last two decades, most developed countries have witnessed tremendous changes that can be traced to the evolution of ICT. In today's society, driven by technology and information, the transmission of messages is very powerful and important for both the sender and receiver. ICTs have made it possible to easily find and distribute useful information resources. Thoiune (2003) notes that a number of initiatives have been introduced at the international level to support Africa's works and efforts toward building a concrete communication infrastructure. These efforts were directed at enabling African countries, including Nigeria, to find the sure-fire ways and approaches of achieving strong and sustainable development.

According to Akpore (1999), among all the technological transformations in recent decades that have influenced the quality of lives in recent years, ICT has had the greatest impact. This is expected to continue until at least the end of the first half of the present century, when further technological inventions in the field of biotechnology, or energy, may present new ways of living. The creation of an information based society, portends the best use of ICTs. Martin (1995) supports the view that describes a society in which the basic attributes of life, as well as the possibilities for social development and economic growth, depend largely on information resources and their management. Today, the advances in ICT and related knowledge fields affect all standard patterns of work and leisure, the learning system, and the marketplace. This is obvious by the increasing rate of information

transmission and the intensive range of products and services now available to mankind (Martin, 1988).

Nigeria, like other African countries in the last century, though politically free from colonial rule, continued to experience instability, desertification, military dictatorship, and all kinds of natural and human calamities. However, the 21st century opened a new page in the country's history of socio-economic development, as it began to enjoy some degree of political stability, economic prosperity, technological advancement, and moved towards ensuring basic life necessities such as shelter, food, education, liberty, and a host of other aspirations that had until now only been imagined by its inhabitants. The latest trends in the development of ICT and related areas in the country in the last 17 years have positively impacted governance with regard to its the improvement in communications apparatus (Hanson, 1990; Narula & Pearce, 1986).

In the past few decades, the scientific industry has played an increasingly important role in national development. Science-based companies developed the economy through research by providing new information resources in areas that were previously the subject of research and new areas where avenues for research can be explored. In this sense, the production, management and dissemination of scientific data and information become very critical for expanding the existing levels of scientific knowledge (Oddoye, 1979).

In the view of Olaniyi (2006), knowledge development in ICT accelerated transfer and cross-fertilised necessary information in real time. Hence, there exists a need to pay attention to the way information technology is used in governance and education systems. In this respect E-learning, for example, has been one of the educational challenges encountered by the modern age.

## **1.2 Identifying Research Problem**

Virtually all developing nations have experienced change of some form due to the

introduction of new communications, information technologies, and technological structures that have been created through implementation of a wide range of policies (Hanson and Narula,1990). The disparate forms of media that were the facilitators of entertainment content (such as radio, film, and television) added large-scale technologies through computer or satellite and peripheral media such as videocassettes.

The changes instrumented and reflected by these new communications technologies significantly impacted the socio-economic progress of Nigeria in the last 17 years. Although, these tools successfully added new dimensions to the nation's information capacity, they are often ill imposed on existing and traditional structures without adequate consideration (Hanson & Narula, 1990). There continues, however, to be conflicting opinions, attitudes, and beliefs surrounding the ultimate impact of these technologies and the degree of change they have in the traditional society.

Very few of these changes or hindrances to effective use of these new technologies in communication and governance have been documented. Moreover, the impacts of these new technologies were never considered through a test of comparative or historical institutionalism (Howell, 2004). Contemporary technological interventions often exert and introduce radical changes within traditional societies, and the decision whether to adopt specific information technology may have immediate implications for the economic, political, or social structure of Nigeria (Olaniyi, 2006).

### **1.3 Research Questions**

Consideration of the problems identified in Section 1.2 led to the elaboration of the following research questions, which formed the basis for the design and implementation of this study:

1. What has been the impact of and the challenges encountered by the development of ICT on communication and governance in Nigeria over the last 17 years?
2. What are the hindrances or impediments to the effective uptake and use of these new

technologies in Nigeria and on its existing social structures?

3. What policy initiatives will be instrumental in improving the existing ICT services in Nigeria?

## **1.4 Objectives of the Study**

In answering the research questions, the study's objectives are as follows:

1. To evaluate and contribute to knowledge by identifying challenges that are related to communication services in Nigeria, with a particular interest in ICT and the political, social, economic and cultural life in Nigeria.
2. To examine the ICT led changes instrumented in the country, in various arenas such as the political and governance sphere, and in terms of changing patterns in socio-cultural relationships, and examine its role in context of the developmental goals of the country.
3. To use various kinds of analysis in order to understand the impact and behaviour of the ICT in Nigeria, these include employing Hermeneutic analysis, dialectic processes, ethnographic analysis and quantitative analysis of the data collected, in order to gain comprehensive insight into the subject.
4. To draw relevant conclusions and findings through the analysis and interpretation approaches aforementioned, oriented towards expanding the scope of ICT in the country and eventually enhancing the level of state governance.
5. To build a theoretical model for communication governance while showing the impacts of ICT in governance and proffering solutions to the challenges facing the communication industry.
6. To examine the existing literature in the field of ICT in Nigeria and to review it critically in order to identify lacuna and shortfalls in the existing studies in the field and make an attempt to address them.
7. To contribute and add to the existing literature on the impacts of ICT on governance in Nigeria.
8. To make valuable suggestions for improving ICT services, through suggestions for



improvement and refining the organisation of the present services as well as the introduction of novel services in Nigeria.

## **1.5 Subject Area**

The difference between media and information technologies is not a significant definitional problem, but it does suggest an important historical dimension. Traditionally, the term *media technology* referred to telephony, radio, and television - technologies that held connotations of having a limited purpose and utility (Hanson & Narula, 1990). *Information technology*, however, is a loosely defined term and is identified with a wider range of communication technologies such as computers, satellites, and "add-ons" to older media forms through means of video- and audio-cassette recorders, video and audio disc machines, and the broader range of telecommunication technologies that integrate larger, more sophisticated connections such as computer and telephone, telephone and video, and satellite and computer (Hanson & Narula, 1990). *Information and Communication Technologies (ICTs)*, according to Bartlett (2002), refer to systems introduced for producing, storing, sending, and retrieving digital files (These files can contain text, sounds, and images, both still and moving). Information and communication technologies, and particularly the Internet, are transforming all human activities that are dependent on information, across the breadth of urban and rural spaces.

ICTs are essential to fulfilling and securing human needs. Without reliable information resources and the technology to make them accessible, decision-making would be extremely subjective. Communicating that information is, therefore, central to all forms of social and economic growth. Information has become a major tool for learning, work, recreation, and innovation; it has become a key enabler and the primary currency of the contemporary era, and ICT is the driving force behind it (Awe, 2010).

The development of information technology in Nigeria has brought about the transmission

of information at a higher rate. The dramatic acceleration in the development and use of ICT during the last 15 years has set in motion a worldwide process of transition from a primarily industrial to an information society (Alemna, 2000; Griffith, 1980).

## **1.6 An Overview of the Thesis**

For ease of understanding, the thesis has been classified into five components. The first is this introductory chapter, which gives the background introduction, the research problem, the research questions, the study objectives, the subject area and the thesis overview. This is followed by Parts I, II, and III, which deal with the literature review, the methodology and data collection, research theory, data analysis, and theoretical model development. Each of these sections contain several chapters. The final component, Chapter 11, offers conclusions, theory and practice, limitations contributions, and future research. Further details of all the chapters of this thesis are provided in the following descriptions.

### **Part I: Literature Review**

This part incorporates Chapters 2 and 3. Chapter 2 provides a review of the extant philosophical and theoretical literature on communication governance, with focus on the philosophical antecedents of the fathers of oratory and rhetoric, such as Socrates, Plato, Aristotle, Machiavelli, Weber, and Foucault, that form the core trajectory of the communicative and administrative governance in the research. The chapter also provides definitions for some theoretical terms and concepts such as communication, structuralism, post-structuralism, communication theory, dialectics in the evolution of communication, governance, communication and governance, agency theory development, economic factors and culture. Chapter 3 discusses the case study literature review, combining the concepts of communication in pursuit of development in governance and identifying the belittling difficulties linked with the management of the communication industry in Nigeria. It discusses issues on communication and the cultural effects it has on Nigeria. It also discusses ICT and provides insights into its global impacts on citizens. It further discusses the liberalisation of ICT in sub-Saharan Africa; Information and Communication

Technology (ICT) and Impacts in Nigeria, the Global Partnership for Development, network operators; Connecting Nigeria, and networks and partnerships.

## **Part II: Research Methodology and Research Theories**

This section comprises Chapters 4 and 5. Chapter 4 provides an account of the methodology used and reviews the research design, paradigms of inquiry, approaches, and strategies. To address the gap identified in the knowledge of communication and governance, the chapter discusses the critical theory paradigm of inquiry and phenomenology, which provides the interpretations regarding the differences between the internal and external world as well as levels of objectivity and subjectivity. The chapter further discusses hermeneutics and ethnography, the methodologies used in the research. It employs research methods such as questionnaires (specifically, a Likert Scale), interviews, focus groups, and documentary evidence, from which the formal theoretical model inductively derives its data. The historical and philosophical account of hermeneutics is further provided and justified as the research methodology. It also described the methodologies of paradigms of inquiry, which allow the investigation in identifying different interpretations regarding theory and methodology (Howell, 2004). The chapter also discusses hermeneutics and critical theory as used by Habermas, best recognised for his theories on communicative rationality such as the public sphere. Global polls consistently find that Habermas is widely recognised as one of the world's leading intellectuals (Kutchinsky, 2014); his methods are thus appropriate for this study, particularly those regarding the nuances of communication and governance.

Following the methodology and methods section, Chapter 5 discusses the theoretical framework that guides and sets the direction for the research and the data collection. The aim of this chapter is to examine the relevant theories highlighted in the literature review that will lead to the analyses of the empirical data. It also captures some relevant theoretical models and explains their relevance to ICT and their efficacy and importance to governance. The understanding will form part of the model of “simplified perspectives of the phenomenon” (Howell, 2013, p. 27) for the research findings. The chapter further offers an

understanding of the theories of communication, governance, culture, development, structuralism/post-structuralism, and dialectics as the basis for explaining the different viewpoints on communication and governance through which the concepts, theories, and systems have been developed for clarity on the research question under investigation.

Chapter 6 describes the different processes used in gathering the primary and secondary materials for the study. The chapter follows the discussion on the research theories that provide the connection for explaining the research methods that set the direction for the collection of data for the findings. The chapter further explains the various processes used in the gathering of the primary and secondary materials for the study. The chapter then discusses the science of human exploration into the image of an old but now re-emerging paradigm often called *qualitative research* but is, perhaps, suitably called *hermeneutic empiricism* or simply *hermeneutic science*.

### **Part III: Data Analysis and Theoretical Model Development**

This part deals with the data analysis and the emergence of the theoretical model and comprises Chapters 7, 8, 9, 10, and 11. Chapter 7 deals with the survey questionnaires (Likert Scale) analysis. The interviews and focus groups discussion analyses were based on the research questions and the documentary material collected from communication agencies, libraries, stakeholders, professionals, and industry experts in Nigeria. The analyses touch on the political, socio-economic, and cultural impacts of ICT on Nigeria since the full liberalisation of the communication industry in 2000 and address its challenges with suggested solutions to the identified key sectors. The survey report was generated from the responses on questionnaires (Likert Scale). The feedback from the survey questionnaires was examined for an overview of the benefits of ICT and the challenges confronting the communication industry, with recommendations for addressing the challenges. Chapter 8 deals with the detailed analysis of thHermeneutic and Habermas dialectical underpinning the history of ICT, while Chapter 9, an Ethnographic analysis, encompasses all the semi-structured interviews and focus group discussion.

Chapter 10 presents a summary of the study findings. It examines the degree to which ICT in Nigeria has been applied to specific areas of human activities influenced by communication and governance. The chapter also discusses cultural impacts of ICT on governance in Nigeria. A formal model of ICT and good governance emerges, showing how management otherwise known as e-government, as in websites and systems, facilitates communications between a government and stakeholders such as citizens, businesses, and employees.

Chapter 11 brings the thesis to a close, with overall conclusions and the implications for practice. Drawing on the findings, the chapter offers solutions for the achievement of good governance, taking into consideration the challenges debilitating the ICT industry. The findings also take a reflective appraisal of the investigation, which reveals a deeper knowledge of ICT and governance in Nigeria. A final part of this section deals with some of the identified limitations of the research, new contributions to knowledge, and recommendations for future research and policy development.

## **PART I : LITERATURE REVIEW**

### **CHAPTER TWO – PHILOSOPHICAL AND THEORETICAL LITERATURE REVIEW**

#### **2.1 Introduction**

Communication is a strategic and imperative function in governance. If public communication is exercised at various levels (local, national, and international), it must also constantly adapt to different types of messages on a variety of supports, in addition to traditional and social media networks that necessitate perpetual evolution. Without being synonymous with the electoral or political communication, communication in governance is similar to political communication practiced by the public person, not when exercising power, but when trying to acquire it. This section presents previous research in relation to the role of communication, and by extension ICT, in governance. Multiple theories are highlighted, with the aim of helping to establish an appropriate framework (introduced in Chapter 5) for this research analysis and thus to provide comprehensive tools upon which the findings will be compared.

The development of ICT has profoundly changed the modes of governance, the principles of political participation, and the patterns of the relationship between people. All spheres of society are affected. Indeed, Castells (2000) launches a warning in attempting to bring about understanding that if humans do not concern themselves with networks, networks themselves would look after humans because life in society now necessarily involves life in networks. Companies today operate in an environment increasingly complex and transient. Saturated markets, increasing competitiveness on the part of multinational companies, greater access to knowledge, increasingly demanding and less loyal customers, and demographic changes are challenges faced by modern enterprises. Recognising this, the debate on ICT is essential in the new economic situation, as long as ICTs today have a

supra-operational dimension. Indeed, they are designed and currently embodied in organisations for strategic purposes. However, given the fact that ICTs are progressively introduced and integrated into organisations, their adoption involves social costs as well as effects on corporate governance systems. Thus, the practices of management and public policy are more dependent on technological advances.

## **2.2 Overview: Communication Theory**

The unity and sustainability of any society cannot be achieved without effective communication. This is because progress and development find a common ground when people come together to discuss the various issues that they all face as members of the same society. Communication cannot be complete without a channel or medium. The question of “mediatisation” has gained significance in recent time, with research being focused on its importance and relevance as a primary concept in the fields of media and communication. The term “mediatisation” is used to refer to the penetration of forms of media into most human endeavours and practices (Couldry and Hepp. 2013). Among all such forms of media, electronic media enjoys an unparalleled level of pervasiveness. Most channels of communication use a level of electricity to get information across to people; hence, the term electronic media. Every medium of communication can be classified into electronic or non-electronic media (Craig, 1999). Non-electronic media involves traditional media of communication used in rural communities, while electronic media refers to radio, television, Internet, and other forms of communication brought about by the development in ICTs predominant in industrial societies.

Significant investment and efforts have been put into ICT research because of its relevance to human progress. According to Crede and Mansell (1998), ICTs are crucially important for sustainable development in developing countries. Thioune (2003) notes that for the past two decades, most developed countries have witnessed significant changes that can be traced to ICTs. These multi-dimensional changes have been observed in almost all aspects

of human endeavour, such as politics, economics, education, communication, and travel. In a technology-driven society, getting information quickly is important for both sender and receiver. ICTs have made it possible to quickly find and distribute information.

### **2.3 Philosophical Literature Review**

Formally speaking, Farrell (1993) defines rhetorical tradition in communication as a practical art of discourse. It is the collaborative art of addressing and guiding decisions and judgment. Rhetorical inquiry, more commonly known as the study of public communication, is one of the few areas of research that is still actively informed by its own traditions (Farrell, 1993). All human actions are understood rhetorically, underlining the fundamental role that communication plays in the human experience since the urge to interact remains predominant among humans. The classical rhetorical tradition has long identified the nature of this primal urge, and contemporary rhetorical theory often relies on these conceptualisations, that reworked them or alternately posits and expands their notions such as the discursive practice of Michel Foucault (Foss, Foss and Trapp, 2014).

The literature review here will cover the philosophical concepts in rhetoric and communication and the related theories and their relevance to governance, which is key to the findings. Philosophers such as Plato, Aristotle, Machiavelli, and others that touched and influenced humanity and ancient governance were often acknowledged as effective orators who were gifted with eloquence and communication qualities. This section will, therefore, take a general overview of the concepts of rhetoric and persuasive communication as posited by Plato and Aristotle, Machiavellian rhetoric, Weber's *Law and Bureaucracy*, and Foucault's theory of history, rhetoric, and discourse in governance. It will attempt to expand on philosophical theory as a precursor to modern communication and projection of communication as a tool for governance.



### 2.3.1 Socrates, Plato, and Aristotle: Views on oratory, rhetoric, and truth

**Socrates.** The developer of the method of thinking and questioning that bears his name, Socrates influenced the writings of his pupil Plato. As Benjamin Jewett put it, Plato is often seen as Socrates's most faithful pupil, while others see Plato as having betrayed his teacher. The debate about whether Plato was an idealist or a fascist in the making or whether "he was faithful or treacherous to Socrates constitutes a characteristically modern debate" (Lane, 2015, p.2). Irrespective of the ambiguity about the relationship between these two orators, they are seen as the cornerstones of the Western metaphysical tradition, around whose thought, the style can be said to be anchored (Russell, 2013). Isocrates' school developed a comprehensive, liberal education, with the goal to prepare orators to think clearly in a variety of disciplines and have historical and literary examples readily at hand. "[Isocrates] preached that the whole man must be brought to bear in the persuasive process ... and so it behoved the aspiring orator to be broadly trained in the liberal arts and securely grounded in good moral habits" (Corbett, 1990a, p. 542). The historical impact of this fusion of liberal studies and rhetoric has been profound and unequalled.

**Plato.** In *Gorgias and Phaedrus*, Plato rejects rhetoric unless it is in the service of absolute truth. Rhetoric, he believed, should be the exclusive province of philosophers who, through discourse, had discovered ultimate truths that predated creation (Kauffman, 1982, 1994). The enlightened few were then to use rhetoric to lead the unenlightened masses toward those truths, much as the wise, experienced, noble lover was to lead his young protégé "to the likeness of the god whom they honor" (Plato, trans.1914/1928, p.253C). Two problems with Platonic rhetoric, however, have impeded its progress over time: the near impossibility of ascertaining absolute truth and the rhetoric's aggressive intolerance of opposing viewpoints.

In *Gorgias*, Plato argues as follows:

Imagine someone who after attending wrestling school getting his body into good shape and displaying a boxer, went on to hit his father and mother or any other family member or friend. By Zeus, that's no basis to hate physical trainers . . . And to exile them from their cities! For a while these people

imparted their skills to be used properly against enemies and wrongdoers, and in defence, not aggression, their pupils pervert their strength and skill and misuse them. So it's not their teachers who are wicked, nor is this a cause why the craft should be a reason of wickedness; the ones who abuse it are supposedly the wicked ones. And similarly is true for oratory as well Plato 1914, (p.802 456d, 457a–b; Barney, 2010. p.95)

The orator has the capacity to speak facing everyone on every subject, so as in meetings to be more persuasive, in short, about everything he likes, but the fact that he has the capacity to rob doctors or other craftsmen of their reputations don't give him any additional reason to do it. He should use oratory justly, as he would with any competing skill. And I suppose that if a person who has matured as an orator goes on with this ability and this craft to act wrongfully, we shouldn't hate his teacher and exile him from our cities because while the teacher allowed it to be used justly, the pupil is making the opposite use of it. So it's the misuse whom it's just to hate and exile or put to death, not the teacher (Barney, 2010. p.95).

Plato's insistence on unshakable knowledge of absolute truth as a prerequisite to rhetoric is in the words of Jaeger (1944), "repulsive to ordinary common sense" (p. 57). Indeed, in *Gorgias* (Plato, trans. 1925/1975), Socrates can name no one, past or present, capable of such insights, except himself and Plato. Plato's intolerance of dissent has drawn far more critical fire than his demand for knowledge of absolute truth. Plato is "one of the most dangerous writers in human history, responsible for much of the dogmatism, intolerance, and ideological oppression that has characterised Western history," writes Kennedy (1994, p. 41). Kauffman (1982/1994) labels Platonic rhetoric "totalitarian and repressive" (p. 101), and Black (1958/1994) maintains that it is a form of "social control" (p.98). Hunt (1925/1990) concludes that although Platonic rhetoric promoted goodness, it was "goodness as Plato conceived it" (p. 133).

**Aristotle.** DeCaro (2011) argues that the rhetoric of not only Cicero and Quintilian (who will be discussed in Section 2.3.2), but of the Middle Ages, of the Renaissance, and of modern times, is basically Aristotelian. While Plato clearly places great value on communication itself and recognises that persuasiveness of a narrative is intertwined with the person that is persuaded, his pupil Aristotle also notes that the goal of rhetoric is not to

measure the persuasiveness of statements toward one person alone but to people of an appropriate kind or audience (“class of persons”). Rhetoric, therefore, focuses on narratives that have the ability to persuade a broader class of people and presents a tool-kit with possible remedies, just as medicine provides possible cures for broader types of people rather than an individual alone. It does not concentrate on the interests of one person but on broader types of persuasive arguments that appeal to a class of people. For this purpose strategic manoeuvring is used to seek rhetorical advantage, and one parameter used for doing so is by employing speech terms and definitions that are persuasive and hence work to ensure that either the overall denotation or connotation is kept constant. This principle of putting to use persuasive speech and writing is similar in both dialectic and rhetoric communication (Zarefsky, 2014). Hence persuasiveness can be understood as existing beyond the dimensions of individual preferences and interests and instead focuses on a larger group or community of people.

Aristotle's *Rhetoric* (2000) defines persuasion/rhetoric as an attempt to influence a person's beliefs, attitudes, intentions, or behaviour. Aristotle defines the rhetorician as someone who is always able to see what is persuasive. Correspondingly, rhetoric is defined as the ability to see what is possibly persuasive in every given case. That is not to say that the rhetorician will be able to convince under all circumstances. Rather he is in a situation similar to that of the physician: The latter has a complete grasp of his art only if he neglects nothing that might heal his patient, though he is not able to treat every patient. Similarly, the rhetorician has a complete grasp of his method, if he discovers the available means of persuasion, though he is not able to convince everybody.

Alexios and Karampatzos (2011) argue that Aristotelian rhetoric attempts a holistic communicative reason that governs parties' attempts to persuasion. According to Aristotle, “Anything that is persuasive is persuasive about somebody, and is persuasive and impressive as confirmed by propositions that are convincing.... Rhetoric will not consider what seems probable in each case, for instance to Socrates or Hippias, but that which seems

likely to this or that class of persons (Aristotle, *Rhet.*, trans. 1926/2000, I.2, 1355b, p. 25–26).

### **2.3.2 Cicero, Quintilian, Petrarch, Machiavelli, Kant, and Bentham: The power of rhetoric, eloquence and governance**

Giorgini (2014) notes that Cicero, Quintilian, Petrarch, and later Machiavelli were great Roman/Italian orators and philosophers who made significant contributions to human history. Other philosophers such as Kant and Bentham postulated on the proper role of rhetorics in governance.

**Cicero.** The importance of Cicero's writings or reference in the politics and rhetoric for Italian humanist and Renaissance culture cannot be overstated. A Roman philosopher, politician, lawyer, orator, political theorist, consul, and constitutionalist who directly and indirectly influenced life through his works and through authors who had read him and adopted his ideas and style. Cicero exerted himself both theoretically (his philosophical and political ideas) and stylistically. Skinner (2002) observes that among Renaissance humanists, Cicero was the best known and most widely quoted author of classical antiquity; more than 600 hundred manuscripts of *De Officiis* survived to testify the importance of this text (Skinner, 2002).

**Quintilian.** Marcus Fabius Quintilianus (A.D. 35-95) was a celebrated orator, rhetorician, Latin educator and writer who promoted rhetorical theory from ancient Greece and from the height of Roman rhetoric. His work on rhetoric, the *Institutio Oratoria*, is an exhaustive volume of 12 books and was a major contribution to educational theory and literary criticism. According to DeCaro (2011), Quintilian's system of rhetorical knowledge focused on the creation of the ideal Roman orator: a virtuous, efficient, courageous, eloquent man. His aim was to prepare an orator-philosopher-statesman who could combine wisdom with persuasion for the sake of regulating the state. It was this insistence on the intellectual and moral training of the aspiring orator that made Cicero and Quintilian the two most potent classical influences on rhetorical education in England and America. Furthermore, Isocrates

Art of Rhetoric is said to have influenced both Cicero and Quintilian. Primarily, Isocrates's development in the areas of rhetorical style became an instrument in refining the loud and uncouth technique of Georgias as an appropriate tool for speech and writing. The other significant intervention by Isocrates was in outlining the characteristics of a supreme orator, emphasising that an individual's whole self should be brought into use while communicating. This, led to the concept that an exemplary orator should also demonstrate the characteristics of a standout individual. These two primary notions relating to rhetorical style and the orator's persona was first endorsed by Isocrates who had the formative influences on both Cicero and Quintilian. (McCroskey, 2015). While Aristotle saw rhetoric as morally neutral, a human tool whose moral character resided in the speaker, not the art, Quintilian viewed rhetoric as a means of enhancing a better self-governing society, to make moral goodness integral to oratory.

**Petrarch.** Francesco Petrarch (1304–374), was also a poet and scholar whose humanist philosophy set the stage for the Renaissance. He was considered one of the fathers of the modern Italian language. Petrarch was born Francesco Petrarca on July 20, 1304, in Arezzo, Tuscany. His poems addressed to Laura, an idealised beloved, contributed to the Renaissance flowering of lyric poetry. Petrarch's inquiring mind and love of Classical authors led him to travel, visiting men of learning and searching monastic libraries for Classical manuscripts. He was regarded as the greatest scholar of his age (Whitfield, 2016). Throughout his lifetime, Petrarch amassed an impressive collection of such texts, which he later bequeathed to Venice in exchange for a house, refuge from the plague. Petrarch's other passion was writing. His first pieces were poems that he composed after the death of his mother. He went further to write sonnets, letters and histories. Petrarch's writing was greatly admired during his lifetime, and he was crowned Rome's poet laureate in 1341. The work Petrarch held in highest regard was his Latin composition *Africa*, an epic poem about the Second Punic War. His vernacular poems achieved greater recognition, and were later used in helping to create the modern Italian language (Whitfield, 2016).

**Machiavelli.** The writer of the work *The Prince*, Machiavelli did not simply theorise on politics in a rhetorical fashion, but he also regarded political life as the exercise of the power of eloquence and not just the exercise of force, as he has been credited with advocating (Viroli, 1998).

The key character in *The Prince*, *il principe*, has to achieve power and then retain it (Garlie-Nikodimov, 2000; Machiavelli, 2009). The first part of the book is based on the analysis of the various means to win power. Only occasionally does Machiavelli propose very general principles, for example that the prince should depend only on himself and have his army. He should always suspect the personal ambitions of members of the elite and ensure that the common people respect him and hear him but not hate him. To this end, he must make a display of the virtues most appreciated by the people (mercy, fidelity, humanity, religious faith, and integrity).

For Machiavelli, princes and republican leaders must know the art of war; however, they also need to master the art of words and know how to speak eloquently to persuade, instill hope, calm furor, inspire courage, and remove fear (Viroli, 1998). Rhetoric accompanies politics always and everywhere, on the battlefield before and after combat, in the prince's cabinet, in the Senate's palace, in the Grand Council's meeting hall and in diplomatic transactions.

Machiavellian communication in the act of governance remains an influential element in the political works of the last 500 years (Moore, 2012). Machiavelli (2009) identifies communication practices of his times and how these featured in the relations between states and citizens (Buskirk, 1974; Galie et al., 2006; Lies, 2010; Swain, 2002;). His methods were more often than not described as amoral. In Machiavelli's view, because a prince must know how to use the nature of the beast to his advantage, he must emulate both the fox and lion, because a lion cannot defy a snare, while a fox cannot defy a pack of wolves. A prince must,

therefore be a fox to spot the snares, and a lion to overwhelm the wolves...the prince who models himself only on the lion does not grasp this. A wise ruler should keep his word when it would be to his advantage (Lies, 2010). If all men were good, this rule would not be. But as men are wicked and not prepared to keep their word you have no need to keep your word to them.

Machiavelli does not deal with the question of what would be the best political system or form of government. Instead, he asks how the rulers of a city could establish a stable and long-lasting regime, one that takes a reckoning of the particular circumstances of the city's foundation, its history and its customs (Garlie-Nikodimov, 2000; Kuper & Kuper. 1985; Machiavelli, 2009).

Another of Machiavelli's works, the *Discourses*, also deals with the question of a stable and long-lasting government but in an utterly different context. The reader is invited to follow the turbulent history of the Roman Republic. There is the grand desire to dominate and command, while the masses, the *popolo*, wish neither be dominated nor be commanded. In a city accustomed to princely domination, the *popolo* expect the prince to protect them against the *grandi* (Garlie-Nikodimov. 2000, Machiavelli. 2009). To Machiavelli, this antagonism was the basis for liberty, as the plebs compelled the Senate to promote greater equality and submission to the grand rule of law. Religious belief predominant within the population is identified as a broker in faith systems and considered as an influencing factor in the overall realisations of political aims, associated achievements and setbacks. Hence, religious belief appears as a pivotal parameter and therefore, essential that a ruler moulds his belief systems from the ones that prevail among the population that he governs (Tarcov, 2013).

Machiavelli's recommendations for communication, therefore, respond to the view of the world, one in which toughness and cruelty are sometimes needed to wield power and control, as evidenced in Chapters 3, 18, 19, and 21 of *The Prince* (Machiavelli, 2009).

Communication priorities are especially prominent and reinforced in the author's pragmatic and conservative attitude to power (Moore, 2012).

**Kant.** Immanuel Kant's position, can be understood in terms of his deontological approach to ethics, which attempts to determine the content of duty without considering the consequences of particular ways of acting (Pritchard, 1949). Conversely, the Machiavellian teleological approach to ethics morally evaluates actions by looking to their consequences. Right actions are right because they point to have good consequences; wrong actions are wrong because they have bad consequences (Macdonald and Beck-Dudley, 1994).

**Bentham.** While Jeremy Bentham was many things, first and foremost he has been described as a social scientist, a reformer, and what today we might call a public administrator (Heart, 1982). As a social scientist, Bentham was an empiricist who advocated the use of quantitative methods in social observation and the development of a value-free language devoid of emotional and ambiguous terms. Bentham was fascinated by what he believed was the ability of language to obfuscate and mystify the commonplace. He was particularly critical of the law in this regard. Bentham sought to demystify language. His concern with language and its interpretation sets him apart from other thinkers of the European Enlightenment (Heart, 1982). Bentham believed that the key to demystifying language was in making sentences, rather than words, the unit of analysis. This focus on sentences presages the work of both Ludwig Wittgenstein and Bertrand Russell (Heart, 1982).

As a reformer, Bentham's central focus was on political, legal, and social reform. The central question for Bentham and the Utilitarians was, "Who are the savages, and how can they be civilised?" The utilitarian answer was the creation of the welfare state that would set up a series of rewards and punishments to regulate human behaviour (Mack, 1963).



Although he never held any public office or government position of trust, Bentham thought like a public administrator. He had what might be called a “practitioner’s perspective.” Bentham was concerned as much with doing as he was with knowing; he was fond of saying that “knowing without doing is worthless” (Mack, 1984).

The discussion on the power of rhetoric and eloquence and its relation to governance of a state, as in the world of Machiavelli, Kant, and Bentham in this section, takes us to the administrative power in Weber’s Law and bureaucracy in governance, which is propelled by communication, both for positive and negative consequences.

### **2.3.3 Weber – Theory of Bureaucracy**

The relevance of Weber’s theory of bureaucracy in the administrative functions and the management of communication industries in Nigeria as well as his insights on the impacts of regulatory law are core elements in this research as it allows a reflective contrast in abstract moral concepts in law and the debilitating challenges associated with bureaucracy in governance.

The views of Max Weber, a German sociologist, philosopher and political economist, influenced social theory, social research, and the entire discipline of sociology. He is often cited, with Emile Durkheim and Karl Marx, as among the three founding architects of sociology, (Honderich,1995). Weber emphasised subjectivity as a necessary element in the research process and stressed that human culture and behaviour are concomitantly involved in research findings. This is similar to Dilthey’s (1989) position that explanation and understanding must take place within a historical context for genetic sequences.

Weber’s insights on the impacts of regulatory law and bureaucracy in governance and administration are key elements to this research. Bureaucratic ideas are typical in capitalist industrial society, hence promoting development due to technical superiority, stemmed on specialised skills and subordinated objectives. The hierarchical organisation was designed to

rationally coordinate the work of many individuals (Jorgensen, 2006; Palonen, 1999; Senigaglia, 2011).

According to Howell (2013), Weber's methodological position was grounded in the historical tradition of Germanic thinking. He maintained that subjectivity was a necessary aspect of the research process; that is, human culture and behaviour should be included in the research findings rather than negated. As with Dilthey, he considered that explanation and understanding must take place within a historical context and required genetic sequences. Each sequence was found unique and could not be associated with others. He does not dispute theoretical categories and considers these as necessary for the social as they are for the natural sciences.

Weber's writings on bureaucracy stimulated key streams of research into the functioning of organisations. Weber's theory views bureaucracy as an "iron cage", that appears simultaneously isolated and effectual. This ambiguous nature seems at once fascist and domineering, while it may also be understood as facilitating in certain respects. It retains a vague picture, despite its occasional provider role and the support it renders in structural organisation (Adler, 2012). Weber's (1946) theory of bureaucracy addresses the merits of administrative structures relying on rational-legal authority as a basis for governing activities in organisations. In this theoretical tradition, formal organisations are conceived as instruments for achieving specific goals, enveloping administrative mechanisms for maintaining their organisation and coordinating their required activities (Blau & Scott, 1962).

The major characteristics of bureaucracy constitute a fixed division of labour, a hierarchy of opinions and authority, administration based on written texts and adherence to general rules, thorough and expert training of personnel, and full-time commitment to official activities (Blau & Scott, 1962).

This research is interested in Weber's concerns for the relationship between organisations and society, why organisations exist, how they facilitate common action, and the dynamics of power, authority and domination. It could be argued that Weber's insistence on the role of societal values in determining organisational forms in society foreshadowed some of the ideas within the institutional theory (Gerth & Mills, 1970; Macrae, 1974). Heugens (2005) draws on Weberian concepts to provide the foundation for an integrative theory of the firm. Heugens argues that the field of organisation studies is divided into two complementary sets of ideas: those that strive to explain why firms exist (e.g., transaction cost economics and agency theory), and those that venture to explain how firms connect the actions of individual actors to collective outcomes (e.g. behavioral, knowledge-based, and evolutionary theories of the firm).

Heugens (2005) uses Weber's theory of bureaucracy, and particularly his notion of rational-legal decision rules, to develop a theory of the firm that discusses both why firms exist and how they operate. Thus, Heugens signifies a utilitarian attitude to Weber's work, not only arguing for its contemporary relevance but also demonstrating its practical application for the development of theory. How does Weberian analysis help us today to understand organisations and organised society in general? Does Weber still have significance in what might be termed the "digital" or information age? Hoogenboom and Ossewaarde (2005) explore the integration of institutions and action through the Weberian concepts of rationality and authority. They argued that rationalisation of society has occurred at the institutional level through the development of modern capitalism, the constitutional state, and modern bureaucracies and at the individual level by a shift from traditional to goal-oriented rationality as the primary basis for social action. Within public administration, Weber's account of bureaucracy has a paradigmatic status, but recent studies have drawn attention to Hegel's account of bureaucracy as perhaps the first theory of modern bureaucracy (Shaw, 1992).

#### **2.3.4 Foucault – critical theory, history and discourse**

At this stage, it is crucial to consider Foucault's work for insights about how laws, regulations, bureaucratic codes, inefficiency, and bad practices in government operations can negatively impact communication processes in any given environment. Foucault's work across the range of disciplines such as mental health, healthcare state institutions and social structures, discourses of knowledge, criminology, penal institutions, history of social phenomena such as sexuality and madness has impacted and altered the course of research in various theoretical and practical studies. These include subjects ranging from literature, medicine to the social sciences. If one were to narrow down some primary recurring notions in Foucault's work, they would be his conceptualisations about power, discourse, and subjectivity (Downing, 2012).

History and discourse are complementary vagaries in the moral concept of communication and governance, which underpins Foucault's viewpoint on good leadership. Foucault, who is often treated as a philosopher, social theorist, or cultural critic, linked almost all of his books with history, from *History of Madness* to *The History of Sexuality*; when the College de France asked him for the title of his chair, his choice was "professor of systems of thought" (Gutting, 2005). Nonetheless, his historical works are quite different from work in the history of ideas and are characterised in distinctive terms, first as the "archaeology" of thought (historical presuppositions of a given system of thought) and later as "genealogy" (concerned with tracing the historical processes of descent and emergence). According to Gutting (2005), thought, Foucault's idea of the archaeology of thought is closely associated with the modernist literary sense that language is a source of thought in its right, not merely an instrument of expressing the ideas of those who use it. Foucault begins with the fact that, at any given period in a given domain, there are substantial limitations on how people can think. Of course, there are always the formal constraints of grammar and logic, which exclude some formulations of gibberish (meaningless) or illogical (self-contradictory) (Gutting, 2005). Foucault provides a detailed formation of archaeology as a historiographical method in *The Archaeology of Knowledge*, but the method was gradually

developed earlier in three histories written in the 1960s: *History of Madness*, *The Birth of the Clinic*, and *The Order of Things* (Foucault, 1970). Since it was forged in efforts to treat critical historical problems, it is better evaluated by its historical results than by its persuasiveness as a general epistemological theory (Gutting, 2005). Out of concern for prison reforms, Foucault in 1975 returned to the history of practice in *Discipline and Punish*, with a study of the birth of the 19th-century prison. He developed its account of the interaction of knowledge and power further in *The Will to Knowledge* (1975). The initial works of Foucault, according to Howell (2013) concentrated on the human sciences or, as they are now known, the social sciences. One of Foucault's objectives was to formulate an archaeology method which broke the positivist correspondence theory and the idea of deeper meaning linked with hermeneutics (Clifford, 2001; Howell, 2013; Olssen, 1999).

McKerrow (2011) believes that Foucault's surrealism of truth is an antidote to rhetoric. He views the art form of surrealism as possessing an uncommon power of rhetorical depiction in its displacement of experienced reality. In a manner reminiscent of Burke's (1959) conception of perspectives by incongruity, the juxtaposition of images calls into question the standardisation of appearance. The painting by Magritte entitled *The Voice of Space* (1932) depicts three silver-grey globes hanging free over what appears to be an otherwise normal landscape, with green rolling hills. The three globes appear to be separate objects but are shown as if they might be interconnected. The ambiguity between separateness and togetherness is reflected in the interaction between two Foucaultian triumvirates: truth, right, and power and truth, power, and subjectivities. While the globes may exist separately, they also are the potential products of interaction. Suspended as potentially free-floating objects, the globes reflect the indeterminacy and contingency of the triumvirate: while each has antecedents in prior history, their particular formation at this moment in time is reflective of the present social practices which sustain their present position (McKerrow, 2011). Discourses can be understood as an "active force; it is decidedly not the case that the social system is completely fixed and impermeable, insulated against the strength of a subject's voice: Discourse, the mere fact of speaking, of employing words, of using the

words of others (even if it means returning them), words that the others understand and accept (and, possibly, return from their side) this fact is itself a force. Discourse is about the relations of forces, not merely a surface of inscription, but something that brings about effects" (Davidson, 1997, p. 45). Foucault's notion of discourse has been explored extensively; and seen as his prior work in the domains of power and knowledge. It is a multivariate and nuanced understanding of the "subject" and the connection between the conceptualisation of truth and the self. Foucault's discursive practice includes investigating discourses that appear as harmless and innocuous, through the complex web of power, knowledge and ideas about domination and subjection. In this sense critiques, of the alleged neutral stances of educational discourse look at how it influences the construction of the individual selves and that of subjects (Lazaroiu, 2013).

These and other questions are the ones that might be reasonable to ask in assessing the degree to which a subject has the freedom to speak in a given context. Whatever is possible in one context may not be possible in others. The answers that one provides for one subject in a discursive formation may or may not apply to a different situation. The subject possesses the "power" to speak within the constraints provided by the formation in which one exists. The role of space, as suggested previously, as a place where things happen can be a critical factor in determining the viability of specific discourses. Foucault is sensitive to matters of space and place, and can be termed, in some respects at least, as "the philosopher of space." In writing about the disciplinary practices of the prison, Foucault reverts to Bentham's "panopticon" not as an artifact that actually exists, or should exist, but as a prototype in illustrating the potential power of spatial configuration in creating the matrix within which discipline might occur: "to induce in the inmate a state of conscious and permanent visibility that assures the automatic functioning of power" (Foucault, 1979, p. 201). As he explains, "By the term 'panoptism,' I have in mind an ensemble of mechanisms brought into play in all the clusters of procedures used by power" (Foucault, 1980c, p. 71). It is in this sense that the concept functions as a "place-holder" for practices that, in one form or another, manifest themselves in the service of disciplining the other.

Methodologically, Foucault's works utilise the two approaches of thought, of archaeology , an genealogy, by which a given thought system or process comes into being and subsequently transformed. His approach will help in tracing the historical development of communication from old to modern.

The background understanding of the philosophical foundation upon which the research work is based, which has been discussed in this segment of the literature review, necessitates a close reflection also on the relevant theoretical literature in “communication” and “governance” as they both have intertwined in the development of society.

## **2.4.Theoretical Literature Review**

“Theory is found in antiquity and derives from the term *theoria*, which means to behold or view. Theory has the same root as theatre, which provides reflections on society and the world. It involves a way of viewing or reflecting on the world and in this way it is different from knowledge of how the world is (reality or truth)” (Howell, 2013, p.19). Even though communication theory is not yet a coherent field of study, Craig (1999) argued that it is relevant to a common practical life-world, in which communication is richly meaningful. Communication theory, in this view, is a coherent field of meta-discursive practice, a field of discourse with implications for the practice of communication. The various traditions of communication theory offer distinct ways of conceptualising and discussing communication problems and practices. It is in the dialogue among these traditions that communication theory can fully engage the ongoing practical discourse about communication in society (Craig, 1989; Craig & Tracy, 1995).

The dynamics of communication are driven by the power of the media in selecting and shaping presentation of messages strategically using political and social power; and influencing agendas as well as triggering public discourse. Using these ideas to design empirical research projects is another more indirect way to build a bridge between normative theory and political reality (Habermas, 2006; Lee, 2005; Strabheim, 2009; Weinshall, 2003).

Normative theory serves as a guide to research areas such as political science and uses ideas to design empirical research projects, which are a more indirect way to build a bridge between normative theory and political reality. This explains the elective affinities between political liberalism and the economic theory of democracy (Arrow, 1963) on the one hand and between republicanism and communitarian approaches (which focus on trust and other sources of solidarity ‘‘habits of the heart’’ on the other (Bellah, 1975; Putnam, 2000).

The deliberative model is interested more in the epistemic function of discourse and negotiation than in rational choice or political ethos. Here, the cooperative search of deliberating citizens for solutions to political problems takes the place of the preference in aggregation of private citizens or the collective self-determination of an ethically integrated nation. The deliberative paradigm offers as its main empirical point of reference a democratic process, which is supposed to produce legitimacy through a procedure of opinion and will-formation that grants publicity and transparency for the deliberative process, inclusion and equal opportunity for participation, and a justified presumption for reasonable outcomes (mainly in view of the impact of arguments on rational changes in preference) (Bohman, 1996; Bohman & Rehg, 1997).

Most of the theories of communication are, from the point of view of government or non-governmental organisations (NGOs), involved with an intervention to help less powerful groups. If one enters into the life situation of the rural and urban poor, there is, of course, a question of respect for identity, but life is one long, desperate search for a job, resources to get children into schools, adequate housing, proper medical attention and the money to pay for it, assuring good production and marketing of products, and a host of other needs. To get these resources, one builds alliances with resource agencies such as government services or NGOs.



#### **2.4.1. Communication: definition and characteristics**

Communication is a two-way process in which people exchange encodes - decode news, information, feelings, and ideas and create and share meaning. It is also a means of connecting places or people (Littlejohn, 1992; McQuail & Windahl, 1986). George (1976) asserts that communication should be seen as a means of “organizing concepts,” “selecting relevant concepts,” and determining how the narrative should be constructed. However, Howell (2013) posits that grand theory and philosophical framework allow the understanding in a generic context but are unable to produce prediction of historical determinism.

The peaceful existence of a society and the coexistence of its members cannot happen if there is no interaction between them and their environment (Oladeji, 2012). Communication is the process of sharing ideas, information, and messages with others in a particular time and place (Oladeji, 2012). The very unity and sustainability of any society cannot be achieved without the element of communication. This is because progress and development cannot be achieved if the people do not find a common ground to come together and discuss the various issues that they all face as members of the same society (Awe, 2010).

Communication requires a channel or medium. Most channels of communication use electricity to a certain degree in receiving information across to people, hence the coining of the term *electronic media*. Every medium of communication can be classified into non-electronic or electronic media. Non-electronic media are primarily traditional media of communication used in the rural communities, while *electronic media* refers to radio, television, the Internet, and other media brought about by the development of information and communication technologies (Craig, 1999). Craig (1999) further posits that the process by which individuals interact and influence each other may occur face-to-face or through technological media and may flow from one to one, one to many, or many to many, but in all formats, it involves (contrary to the phenomenological view) interposed elements that mediate between individuals.

Communication entails creating meaning (Rosengren, 2000). Meaning involves questions such as how people create meaning psychologically, socially, and culturally; how messages are understood mentally; and how ambiguity arises and how it is resolved. Littlejohn (1992) states that “Communication does not happen without meaning, and people create and use meaning in interpreting events” (p. 378). The crucial question, however, is what kind of meaning is created by whom and what implications that meaning has regarding interpreting the world (Littlejohn, 1983). Meaning can be explained as the “whole way in which we understand, explain, feel about and react towards a given phenomenon” (Rosengren, 2000, p.59). According to Langer (cited in Littlejohn, 1992), the concept of meaning has two dimensions: a denotative and a connotative one. A denotative meaning of a phenomenon is the definition one can get in a dictionary. It is overt, being the inter-subjectively shared connotation of a word. The connotative meaning refers to all personal feelings and subjective associations to a symbol. A dog is denotatively a four-legged domestic animal. But for some, the word *dog* contains connotations of fear while for others it contains connotations of tenderness. Many communication scientists stressed that the connotative meaning is the steering factor of cognition and behaviours (Berlo, 1960; Littlejohn, 1983, 1992; Rosengren, 2000; Thayer, 1987). However, not all theories stipulate connotative perspectives of meaning.

The concept of communication has been defined variously and differently over time. The idea can be perceived with regards to the broader implications it has on human interaction, language and other systems of thought. Research in the field of communication has also been linked to the fundamental philosophical dimensions associated with the phenomenon. These underpinnings can only be understood when studied in the context of human experience and its connection with other aspects of social existence. Since communication is a phenomenon that moves beyond ideas of individuality and subjectivity, and towards thoughts of collective social structures, it is worthwhile understanding the occurrence in terms of the philosophical emphasis on established nuances. The entry point to the work

done in the field of philosophy is provided by the schools of thought known as Structuralism and Post-structuralism.

With this understanding of communication and its connotations, it is important to also have an understanding of structuralism and post-structuralism considering their relevance to the research paradigm of inquiry and the philosophical underpinning focus. These concepts will be discussed in greater detail in Section 2.4.4.

#### **2.4.2. Communication theory: general characteristics**

Baudrillard et al. (1988) opine that communication is mediated by signs and sign systems. For social psychology, it is mediated by psychological predispositions (attitudes, emotional states, personality traits, unconscious conflicts, social cognitions, etc.) as modified by the emergent effects of social interaction, which may include the effects of media technologies and institutions as well as interpersonal influence (Baudrillard et al., 1988).

Communication theory in this way explains the causes and effects of social behaviour and cultivates practices that attempt to exert intentional control over those behavioural causes and effects. Social psychology seems plausible and practically useful because it appeals to our commonsense beliefs and our everyday practical concerns about the causes and effects of communication. We readily believe that our ways of communicating and our reactions to the communications of others vary according to our individual personalities. We are not surprised as humans to learn that our judgments can be influenced by the immediate social context and are often biased (Craig, 1999).

A central problem of sociocultural theory is thus to find the right balance; that is, to sort out the many relations between production and reproduction, micro and macro, agency and structure, particular local culture and universal natural law, in social life. Early communication theories were focused on communication as a one-way process in which a sender does something to a receiver. However, the identity of this “something” remains a matter of debate (van Ruler, 2004).

Some theories (e.g., the mathematical theory of communication) view communication as a dissemination process, a flow of information in which a sender disseminates a message to receivers by revealing its meaning in the message. The focus is on the flow of information (Shannon & Weaver, 1949), and this information is seen as “objective,” thereby implicitly focusing on the denotative side of meaning. A typical definition within this scope of communication is that “communication is the transmission of information, ideas, attitudes, or emotion from one person or group to another (or others)” (for an overview see Littlejohn, 1992; McQuail & Windahl, 1986).

Other theories view communication as an attempt by a sender to create a predefined attitudinal change in the receiver, i.e., a change in the (connotative) meaning of the situation as perceived by the latter. One well-known theory of this type is the two-step flow theory, which specifies that mass media inform certain people, who on their part influence the meanings understood by others. The focus is on the flow of influence. It is evident that there is no flow of influence without a flow of information, but a flow of knowledge is for these authors not necessarily also a flow of influence, at least not in such a way that the sender can forecast how it will be understood by the receiver (Nillesen, 1998). However, as long as the essence of the message is seen as objective, there is no need to distinguish between information and influence.

The former view of one-way communication is here regarded to as a transmission view, while the latter is a one-way persuasion view. The one-way transmission view centres on the transmission of (denotative) meaning, while the one-way persuasion view emphasises the one-way synchronisation of (connotative) meaning. The transmission views are concerned with the transfer of a message, while the one-way persuasion view is about changing the receiver’s cognition and behaviour.

Many recent approaches to the theory of communication view it as a vital two-way process that is interactive and participatory at all levels. This involves the paradigmatic change of a sender/receiver orientation into an actor-orientation, e.g., a process in which all actors can be active and take leadership. That is why the stress nowadays is often on communication as a process in which meanings are constructed and exchanged, or even shared, by the parties involved.

Again, there are two different viewpoints on this two-way process. For some scientists, the key to communication is the fact that it creates interests inter-subjectively (Putnam & Pacanowsky, 1983). The key word in this approach is dialogue, which means “a free flow of words and its interpretations” (p 128). In linguistic terms, dialogue is not the same as conversation. Trying to convince each other of the “best idea” is a discussion; putting your idea before others and spurring them to bring in ideas in the hope of advancing on the first idea is dialogue (van Ruler, 1999). This idea of dialogue fits the diachronic view of communication, as Thayer (1968,) holds, specifying that communication is an ongoing means of learning, in which meanings develop through growing cognitions, feelings, etc. For others, this process goes further and produces a shared meaning, e.g., a new denotative meaning, which we normally call consensus (Schramm, 1965; Susskind, McKearnan, & Thomas-Larmer, 1999).

The first opinion sees communication as a continuous rather emotional process of co-creating (connotative) meanings, while the second sense sees communication as the rather rational co-creation of a new (denotative) meaning, which is normally called consensus building. Heath and Bryant (2013) attempt to integrate the diverse range of existing communication models, providing introduction to the rules and identifying the inter-connectivity in the concepts as revealed in earlier theoretical investigations. Robson and Robinson (2013) used the present models of information and communication theories as a pattern that reworked the role of communication initiator. The existing and overlapping elements were integrated to develop concepts, through the identification of critical factors in

the process of acquiring information and establishing theory. The previous analysis of the differences in communication theory reveals at least two dimensions of the communication model, namely the extent of involvement of “the other” in the communication process and the view of meaning. In addition, there are three positions regarding that involvement: communication as emission, as controlled one-way process, and as two-way process. The disparate viewpoints endorsed by various communication theory models emphasise the nature of the disjunction between the one way model and the two-way process.

### **2.4.3 Fundamental theories on communication**

Craig (1999) argues that all communication theories are critical to a common practical life-world in which communication is already a richly meaningful term. Communication theory, in this sense, is a coherent field of metadiscursive practice, a field of discourse that regards discourse, with implications for the practice of communication.

The diverse ideas of communication theory offer distinct approaches in conceptualising and addressing communication complexities and practices. These are ways derived from certain commonplace beliefs about communication that might be different from other beliefs, thus corroborating the dialogue that traditions and beliefs in communication theory can fully be engaged in practical discourse (or metadiscourse) on communication in society (Craig, 1989; Craig & Tracy, 1995).

**Cognitive dissonance.** Festinger (1957) proposed the theory of cognitive dissonance which argues the notion that if a person identifies various things that are not psychologically compatible with one another, he will, in type of ways, try to get them more consistent. Hence, it is seen as confusion caused by divergent viewpoints or perspectives. This unease is usually dealt with by rejecting contradictions inherent in the varieties of knowledge, and reconciling them to a unitary and consistent conceptualisation (Perlovsky, 2013). Explaining cognitive dissonance in the context of communication theory, Turner elaborates on Communication Accommodation Theory (CAT) described by Howard Giles, in which individuals modulate and modify their communication styles according to those of others.

This is often done, with the use of behaviours and techniques employed by others through divergence, accommodation or rejection. However, Turner's study on cognitive dissonance examines influences on food choices and related practices with people of multiple races and how dissonance conditions their responses (Turner, 2011).

**Cultivation theory.** According to Gerbner and Gross (1976), cultivation analysis is the original proposition of cultivation theory, which states that individuals are more likely to believe that television represents social reality faithfully, if they spend a reasonable amount of time before it. Cultivation leaves people with a misperception of what is right in our world.

**Cultural theory.** Griffin (2012) discusses the cultural approach to organisations identified by Geertz and Pacanowsky, which argues that any given organisation has a distinct culture in which the definitions for things are assigned by individuals.

**Dramatism.** This concept, as epitomised by Kenneth Duva Burke, is based on interpretive communication studies theory, which tries to compare life to a drama and presents the most direct route to human motives and human relations. For post-structuralists, how an interviewee represents reality in an interview has little to do with the reality itself. In the process of interviewing, temporary subjectivities are formed, which represent reality about the local discursive context created by the interview (Alvesson and Sköldbberg, 2000).

**Expectancy violations theory.** Based on the work of Judee K. Burgoon (1976), this theory expounds on violations of expectations and is explained as an example of how people create veracity judgments. Previous research has discovered that unexpected, weird behaviour is rated as less honest than expected normal behaviour.

**Face-negotiation theory.** Based on the work of Ting-Toomey (2004) face-negotiation theory tries to understand how different cultures throughout the world respond to conflict. The theory says "face", or self-image, is a universal phenomenon that pervades across

cultures. In conflicts, one's face is frightened; thus the person tends to save or restore his or her face.

**Social exchange theory.** This theory is a social psychological and sociological viewpoint that defines social change and stability as a means of negotiated exchanges between parties. Social exchange theory asserts that human relationships are formed by the use of a subjective cost-benefit analysis and the comparison of alternatives (Shore, Tetrick, and Barksdale, 1999; Shore et al., 2004).

**Relational dialectics.** In Cools (2005), relational dialectics is a communication theory that could be interpreted as twists of opposing viewpoints in interpersonal interactions. Leslie Baxter and W. K. Rawlins first proposed the theory.

#### **2.4.4 Structuralism and Post Structuralism**

According to Howell, (2013), "Structuralism can be represented by the ideas of Ferdinand de Saussure (1857-1913), Claude Lévi-Strauss (1913-2009) and Roland Barthes (1915-80). Lévi-Strauss considered that structuralism involved human beings defining and understanding the external world (like empiricists) through the senses" (p. 101). Howell (2013) further posits that post-structuralism and post-modernism are used in different ways by different authors to challenge structuralist and modernist positions. One may consider post-structuralism as an aspect of postmodernism that concentrates on discourse and language patterns linked with subjectivity and identity.

Foucault may be seen as a post-structuralist and/or postmodernist. Margolis (1989), pointed out that Foucault is a typical example of a post-modernist because he considered deconstruction parasitical and reactive in relation to texts and that a more holistic or rounded interpretation of history, power, and ideas was required. In this sense, Foucault's work locates him beyond the label of a structuralist and beyond hermeneutic thinker, associated to his "interpretative analytics" method of research. This term was coined after evaluating the theoretical and discursive practices adopted in the genealogy of the modern individual and ideas; which was the core subject in his extensive work (Dreyfus and Rabinow, 2014).



Whisnant, (2012), however posits that structuralism and post-structuralism have a great deal in common, but post-structuralism retains structuralism's emphasis on language. Furthermore, they retain the structuralist belief that all cultural systems can be represented as "coded systems of meaning rather than direct transactions with reality" (Whisnant, 2012, p.1). Moreover, many of the individuals commonly associated with post-structuralism, Foucault, Baudrillard, and even Barthes, began as structuralists and moved in the course of their thoughts towards post-structuralism. However, there are some key differences that help to define the terms, even though they should be understood not as strict categories but as positions along a spectrum. Structuralists tend not to doubt the existence of reality. The concept of linguistic structuralism as a universal view on language has been questioned by the claim that humanbeings perceive their external realities relative to their language choices, resolving that language relativism influences the nature of perceptions of reality. In this context, the post-structuralist argument against a unitary knowledge of language should be used to explain how individuals with different language choices derive or harbour multiple perceptions of reality (Kone, 2013). This has also been an issue of contention that can be understood as defining the paradigmatic shift between structuralism and post-structuralism.

Howell (2013) argued that poststructuralists, in some cases, doubt the existence of reality, or rather emphasize the variance between "ideas" and "reality" as constructed through discourse. In other words, if there is a reality, it may have no bearing on the sense of "truth" at all. Structuralists have a tendency to be reductive; in other words, they tend to reduce many complicated phenomena to a few key elements that they argue "explain everything." Post-structuralists, too, will be reductive, in their way, but they try to keep in focus the differences that are being ignored in carrying out the reduction. Applying the concept of structure to language and the social sciences originated from the linguistics field through the seminal *Course in General Linguistics* of Ferdinand de Saussure (1983), the founder of structural linguistics (Dosse, 1997)

The heart of de Saussure's linguistics is expressed in the following proposition: A language is a system in which all the elements fit together and in which the value of any one element depends on the simultaneous coexistence of all the others (de Saussure, 1983). According to Harris (1983), de Saussure's connection of language and structure enable the course to occupy "a place of unique importance in the history of Western thinking" and to become a key text "not only within the development of linguistics but also in the formation that broader on the intellectual movement of the twentieth century known as 'structuralism'" (p.9).

De Saussure (1983), in his *Course*, proposes a scientific model of language as systematic rules described independently from the psychological subjectivity of a particular user of language. For example, if de Saussure were to consider this paragraph of text, he would not be concerned with the particular and unique thoughts the authors wants to express or the specific words that appear on the reader's eyes. Rather, de Saussure sees the language system that both authors and readers must hold in common to make this particular example of communication possible and, in particular, the rules by which such a system are governed.

If structuralism is said to begin with Saussure's denotative efforts in linguistics and semiology, post-structuralism would arguably be said to have developed from Jacques Derrida's critique of Lévi-Strauss's foundational approach to cultural anthropology. Many Scholars are of the opinion that Derrida's lecture entitled *Structure, Sign, and play in the Discourse of the Human Sciences* was the formative foray into post-structuralist understanding. (Han, 2013).

Post-structuralism not only questions, but also continues, the central project of structuralism: the inquiry into the organizing principles of a language system. However, while structuralism posits that the language system can be described in an objective and scientific manner as a larger structure that shapes human experience, post-structuralism suggests that such structures or governing systems are themselves always highly contextual

and unstable. Whereas de Saussure's structuralism was confident that the principles by which language is organised can be fully determined and described, post-structuralism calls into question all such assumptions and suggests that such conclusions are always fragile and open to subversion (Radford & Radford, 2005). Hence post-structuralist thought can be understood as making the seminal critique of destabilising the notion of the centre, that has shaped the development of Western metaphysical thought until the advent of post-structuralism.

The relevance of structuralist and post-structuralists' school to the research in the area of theoretical communication models may not be blatantly evident, but it can be understood in terms of communication as a structural system, similar to other social systems like language. The conceptualisation of the language system as a system of signs, functioning according to certain socially sanctioned rules and strictures, which consequentially informs the process of communication. Hence while structuralist thought reveals communication to be an overarching paradigm that organises and impacts all manner of human interaction, post-structuralist thought seeks to understand precisely this formulation of it as a structure. The interpretation of communication as being at once a larger structure, and one that must be deconstructed is indebted to structuralist and post-structuralist thought (Devetak, 2013)

#### **2.4.5 Dialectics The evolution of communication**

Maybee (2016) acknowledged "dialectics" as a term used to describe a method of philosophical argument that involves some sort of contradictory process between opposing sides. According to Howell (2013), "Through dialectical materialism, [Karl] Marx pursued what he termed a complete science of history and society with economic variables determining (or interacting with super-structure) historical process and change"(pg.222).

Dialectics was not the original work of Marx; it was the work of one of his mentors, Hegel. Hegel used the dialectic process to understand how we come to a state of rational thinking. Hegel was a social philosopher. He was not a sociologist or an economist as Marx was. Hegel used the idea of the dialectic process to try to describe how humans elevated their

thinking to become better people, a better society. While the notion of dialectics was original to Hegel and was used as a process to describe change, Marx used it to describe social change. He described a three-point process in dialectics: thesis, the status quo; antithesis, the mechanism for change; and synthesis, the clash of the thesis and antithesis. Because dialectics is a process, when synthesis is reached, the process would start again. The continued process of thesis-antithesis-synthesis in dialectics could propel society forward.

Marx tried to make sense of the industrial revolution, which brought about the definitive social changes and questioned everyone's position within the society from an economic, social and moral point of view. In Anderson (2002), dialectical theory explores how relationships develop from the interplay of perceived opposite forces or contradictions and how communicators negotiate these ever-changing processes (p.350). According to Baxter (1998), dialectical theory is about both unity and difference within relationships (p.2). Baxter (2004) writes, "The core concept in rational perspectives is, after all, the contradiction in a unity of opposites (pp. 182-183). Marxist dialectics with good knowledge in media and communication are relevant communication studies required to comprehend the role of media and communication technology in a capitalist society. A re-reading of Marxist theory helps in decoding the role of the Media, in terms of the struggles against the socio-economic institutions, and also in terms of positing alternatives to forms of media and communication tools. Some common prejudices against Marx and misinterpretations of his work have prevented the acknowledgement of Marxian concepts to the field of media and communication practices (Fuchs and Musco, 2012).

Winston (1998) links communication history from the German thought of the telegraph in the last years of the 18th century, three decades since the first working device. A Frenchman, Charles Bourseul, devised a phone in 1854, more than 20 years before Bell. The idea of television, based on the identification of the phenomenon of photoemission (i.e. that certain metals could produce electrons when stimulated by light), was suggested in 1877. Bell Laboratory workers began worrying about the transistor in the 1930s, when solid-state

amplifiers had already been envisaged for a decade (Abramson, 1955; Baran, 1964; Joe, 2003).

No other innovation outranks printing in the importance of its effects: In its actual history, no other is better known, and no other presents a clearer case of cultural cross-integration (Ayres, 1982). Nothing marks the beginning of industrial civilisation more clearly and significantly than the invention of printing from movable type. In the 19th century, the United States experienced rapid change in the speed in telecommunication. In the pre-railroad United States of the 1840s, it took ten days to send a one-page letter 850 miles from New York to Chicago at the cost of 25 cents for postage. By the 1850s, the railroads had reduced that to two days at the cost of 3 cents. But in the same decade, the telegraph made the transfer of one page of information possible in a matter of minutes, though at a much higher cost of about \$7.50 on average between New York and Chicago (Yates & Benjamin, 1991). In this change, neoclassical economists would emphasise the role of the demand for an increase in the speed of communication and the decrease in the costs of telecommunications. But economists in the Veblen Ayres tradition would emphasise that there was no demand for the electromagnetic telegraph, which is also certainly the case. So why was electromagnetic telegraph developed? It was a combination of path dependency, entrepreneurs who created new technology that built on past inventions, and government policy.

This sequence of progress and knowledge in communication continues to have consequential impacts on development globally and nationally; the degree of success is dependent on the level of its efficiency. Today, information and communication have significantly impacted all spheres of life, socially, educationally, and commercially (Awe, 2010). Private mobile communication and ICT service providers, in partnership with the governments through private and public partnerships, have impacted the globe, sub-Saharan Africa, and particularly Nigeria in the last 17 years in the areas of agriculture, health, micro and small enterprises (MSEs), and education.

Green (2010) notes that cellular telephone (or cellular radio) is a telecommunications mode in which a portable or mobile radio transmitter and receiver, or "cellphone," is connected via microwave radio frequencies to base transmitter and receiver stations that join the user to a conventional telephone network. The geographic area served by a cellular system is subdivided into areas called cells. Each cell has a centre base station and two sets of assigned transmission frequencies; one set is managed by the base station and the other by cellphones.

#### **2.4. 6 Governance**

Governance has been described as “the determination of the broad use to which organisational resources are deployed and the resolution of conflicts among the myriad participants in organisations” (Daily et al., 2003, p.371). Indeed, the consensus view is that governance is all about “patterns of organisational interactions involving multiple inter-dependent actors from the state, market and civil society with the aim of satisfying collective human needs in a complex, dynamic environment” (Kooiman, 2003, p.11). It can, therefore, be argued that the concept of governance can be located within three areas, namely governance in the global space or global governance, which deals with issues outside the direct activity of individual governments; governance in the national space or within a country (Barnett & Duvall, 2005); and governance in the corporate space, which constitutes the activities of incorporated and non-incorporated organisations that are accountable to a board of directors (Mueller, 1992). It is, therefore, the combination of the concepts of corporation and regulation that amounts to governance (Vinten, 1998; Iskande & Chamlou, 2000).

McIntyre (2010) also gave several interpretations to governance in line with Williamson’s views expressed in “The Economics of Governance”. He attaches the term “economics of governance” to the idea of the “study of good order and workable arrangements” (Williamson, 2005, p. 1). Williamson (2005) further asserts that the more appropriate term

for “the science, theory, or study of good order and workable arrangements” (p. 1) is genomics as noted by (Fuller,1954). For the sake of this research, the distinction is important, as governance is viewed as contributing to the good order of both a social and economic nature and as contributing to arrangements that are both socially and economically workable. Thus, this research concentrates on communication governance, which has profound political, economic and sociological impacts on nations of the world. These impacts are evident particularly in the rearrangement of power relations among key message providers and receivers, the transformation of the cultures of political journalism, the “problematisations” of conventional understandings of democracy and citizenship, and the “medicalisation” of politics (Blumler & Kavanagh, 1999; Castells, 2000).

Distinctions between public and private sectors are blurred; governing mechanisms are not underpinned solely by the authority of the state but rely upon the interaction of multiple actors and their influence on each other. In these terms, governance is a multi-stakeholder process with actors drawn from market and civil society institutions as well as from government (Castells, 2000). More of this will be evident in discussions on the government and private entity partnership in the communication industries (Marsh, 2008, 2011; Marsh et al., 1992; Marsh et al., 2000, 2003; Taylor, 2002). This interdependence of public and private sector also opens up the study of processes of policy-making and public administration to the forms of network analysis in which the focus shifts from public agencies to organisational and policy networks (Bingham et al., 2005; European Commission, 2001, 2003; Frederickson, 1999; Kim et al., 2005; Rhodes, 1997; Salamon, 2002; Stoker, 1998).

#### **2.4.7 Communication and Governance**

In Crozier (2007), the term *governance* has been more or less synonymous with *government*, referring to the formal as an institutional processes of the state: how governments make and enforce decisions to ensure public order and facilitate collective action. In recent decades, research on governance has reconfigured this notion in many

different ways (Kjær, 2004). Nonetheless, there is a degree of consensus in the literature that governance now refers to governing modes in which government is only one among several actors involved in governance (Kjær, 2004).

The Williamson perspective would presumably see ICT contributions as changing the costs of exchange transactions. A change in the economics of exchange transactions may lead in this interpretation of his approach to changes in the allocations of such operations among the forms of an economic organisation he specifies – spot transactions in markets, hybrids, and hierarchies. In other words, exchanges might be governed by a regime before the benefits of ICT might be administered in a market afterwards, or vice versa. The potential of the networked economy, as a consequence of the internet, has not only generated a global economy but has fashioned a way of communication through the prevalence of the World Wide Web (Ozuem et al., 2008).

This research views the idea of a transaction more generally. Here, a transaction is the elemental unit of human interaction, sometimes including economic interaction but also including all other elemental interactions between one individual and another, between an individual and an organisation, and between organisations. This research similarly views governance more generally as being the various social processes, including economic processes, that govern the more broadly defined notion of transaction, as will be evident from the more detailed discussion to follow.

#### **2.4.8 Agency Theory**

The concept of agency theory was first outlined by Alchian and Demsetz (1972). Later it was refined by Jensen and Meckling (1976) in their explanation of the firm as a nexus of contracts between different factors of production: “a contract under which one or more persons called the principal(s) engage another person called the agent to perform some service on their behalf which involves delegating some decision making authority to the agent” (p.308). Most of the agency models in the literature have been concerned with



contracts (Fama & Jensen, 1983a), managerial discretion (Grossman & Hart, 1986; Shleifer & Vishny, 1997) or incentive contracts (Jensen & Meckling, 1976). According to Eisenhardt (1989), agency theory is principally concerned with resolving two situations that can occur in agency relationships: if an agency problem arises from conflict in the desires or goals of the principal and agent or if it is difficult or expensive for the principal to verify how the agent is actually doing.

Fundamentally, agency theory holds that, in the modern corporation, in which part ownership is widely held, managerial actions depart from those required to maximise shareholder returns (Berle & Means, 1932). Hence, the popularity of agency theory in corporate governance research stems from two main factors. First, large corporations involve two groups of participants, the managers and the shareholders, and the interests of each are assumed to be clear and consistent. Second, it relates to the notion that humans are self-interested, thus unwilling to forgo personal interests for the interests of others (Daily et al., 2003). Moreover, the applicability of agency theory goes beyond the boundaries of its original domain of finance and economics, as it also dominates discussions in accounting, law, management, political science, and sociology (Eisenhardt, 1989a; Zahra & Pearce, 1989). Although it is argued that agency theory provides significant insights into the workings of firms and the effects of regulatory control on the contractual relationships of managers, particularly with regard to the effects of their actions on the wider group of stakeholders and investors, the theory's underlying assumptions have come under harsh criticisms in recent times (Learmount, 2002).

Learmount (2002) observes that theorists tend to see the firm principally in contractual terms, guided by the assumption of utility-maximizing self-interested human behaviour, and this position makes the protection of investors' capital the main issue for corporate governance. Also, Frank (1994) argues that the theory failed through its inability to consider the demands of social existence and that it creates the conditions that encourage the type of behaviour it purports to protect against (cited in Ghoshal and Moran, 1996).

Despite the relevance of agency theory to the understanding of corporate governance issues, particularly to organisational thinking regarding the treatment of information and risk implications (Eisenhardt, 1989a), supporters of the theory have also admitted that agency theory presents a partial view of the world. Although it is valid, the supporters say, it also ignores a significant portion of the complexity of the organisations in which the managers operate, and by extension discounts the effects of socially embedded relationships in economic exchange (Zaheer & Venkatraman, 1995). This implies that agency theory can only be effective when it is complemented with other theoretical perspectives. Finally, while agency theory provides a unique, realistic, and empirically testable perspective on problems and allows them to be studied in a broad sense (Eisenhardt, 1989a), recent corporate governance discussions have been based on two broad paradigms – stakeholder theory and shareholder theory. Each of these two paradigms was developed through assumptions about the nature of the corporation, the governance structure, and its purpose (Donaldson & Preston, 1995; Letza & Sun, 2002).

#### **2.4.9 Development and communications technology**

Development is the act of advancing the quality of life and making sure everyone has the preference in what that life looks like. It results in growth and brings benefits to people (Honderich, 1995). Development is needed to provide people with the necessities of life and self-esteem. Information is an essential tool for development. For any country to develop, it needs to have and give relevant, updated and adequate information on food security, democracy, health, education, etc. These were the reasons for the adoption of telephone, radio, film, and even to some extent, television, as channels of communication among varied segments of the human population (Pringle & David, 2002; Hughes, 2003).

Developing countries have wrestled with the problems of technology transfer, indigenous production of hardware and software, and bilateral or multilateral negotiations with other nations (developed or developing) to make these technologies attain the present operational level (Ferguson, 1986). There is growing evidence of increases in ICT diffusion being associated with increases in the rate of economic growth (Roeller & Waverman, 2001; Kelly

et al., 2010). Harnessing the human potential of both men and women is the only path to meeting the developmental demands of countries and ensuring their competitiveness in the global economy. Information consistently has been a significant element in the development of human society and has shaped over a long period the way in which humans think and act (Meyer, 2002). Information is crucial for increasing agricultural production and enhancing marketing and distribution strategies (Oladele, 2006). Knowledge also opens windows for giving out experiences, best customs, sources of financial aid, and new markets. By the same token, information allows farmers to make versed decisions regarding production and marketing and to manage their lives successfully to cope with everyday problems and to realise their opportunities (Idiegbeyan-ose & Idiegbeyan-ose, 2009; Matovelo, 2008). As discussed by Aina et al. (1995), information has a vital part to play in improving and sustaining agricultural product of any country or nation. Also, Ochieng (1999) asserts that access to information is a vital tool for empowering individuals to make informed decisions or to take action for themselves or for their communities.

#### **2.4.10 Economic factors and communications technology**

According to Narula et al. (1990), the most obvious problem concerning using technology for any purpose is the cost. Large infrastructures require financial commitment for maintenance, yet many of the developing nations lack the ability to invest in the size and quality of components necessary for global communication. This constraint places a heavy burden on development - one that has a significant impact on any policies initiated by a government. In some countries, most noticeably in Latin America, the economic constraints have led to some rather unusual financing arrangements among private and public, national and international interests. More and more, technological development is being used as a reason and an excuse for heavy economic investments in defence spending. Most governments give the greatest amount of leeway regarding research and development to military branches. These investments are often touted as necessary for the defence of a country, but complications and implications go far beyond a strategic investment (Hanson & Narula, 1990. Narula

(1990) points to a related issue in that the problems with technology often seem to require technological solutions. Are nations that invest money into technologies that can be used for defence asking for an opportunity to prove those technologies work? Do governments that invest in defence technologies do so at the expense of more basic problems such as poverty, disease, and hunger (Narula, 1990). The notion of communication as a basic human right, Narula (1990) argues, has become popular since the Universal Declaration of Human Rights was advocated in 1948. Technologies, in many cases, particularly in the area of telephony, are no longer considered luxury appliances, but rather necessities. These technologies and the means to make them work must be cost accessible to the general public. Similarly, although nations may have stated policies toward the use of technologies, the practices must rely on commensurate elements of production, distribution, and reception. For example, the Indian government's plan to use television for pro-social messages would not work if the population did not have television receivers available and the methods of transmission were not reliable (Narula, 1990). Two important issues then become juxtaposed: technology and economics, and economics and social needs.

This study investigates the relationships among these issues within a case study context for nations that have similar concerns. But for individual reasons, these nations have taken different viewpoints and actions toward meeting the challenges of communication in an information age at the national level, but also at the level that affects the individual in society. Culture remains a constraint for communication development, as the government is often faced with challenges of norms and beliefs that vary from one geographical location to the other.

#### **2.4.11 Culture and Communications**

In order to identify relationships between individuals and society it is necessary to examine issues such as culture and agency. Culture can be understood as an approach to human existence and day-to-day activities that is shared by a community and is shaped by values, traditions, beliefs, material objects, and territory. From this perspective, culture is a complex

and dynamic ecology of people, things, rituals, daily activities, and settings (Lull, 2000). Culture is a broad term that involves a diffuse set of ideas that can vary from the very inclusive “human-made” part of the environment to a shared meaning of a system (Sheweder & Levine, 1984). This entails actual behavior as well as interpretations of behavior, and those social, political and other factors that influence an individual’s behavior and attitude, which are then translated into actions (Smith et al., 2002).

Although culture has been defined in a great number of ways (Kroeber & Kluckhohn, 1952; Geertz, 1993; Hofstede, 2001), no single definition has been agreed upon by researchers. For instance, Kroeber and Kluckhohn (1952) see culture as “consisting of patterns, explicit and implicit, of behavior acquired and transmitted by symbols, constituting the distinctive achievements of human groups, ideas and especially their attached values; culture systems may be considered as products of action, on the other, as conditioning elements in a future action” (Kroeber and Kluckhohn 1952 p. 181).

Geertz (1993) opines that culture is “a historically transmitted pattern of meanings with their embodiments in artifacts, the essential core of culture are embodied in symbols, a system of inherited conceptions expressed in symbolic forms by means of which men communicate, perpetuate, and develop their knowledge and attitudes toward life” (Geertz 1993 p.89). Geertz (2013) goes on to say that it is “an active and constructive dimension of social life rather than just a dull mechanism for ensuring social integration” (p.216). From this perspective, culture can be explained as the blueprints through which people give their world meaning in all spheres.

Hofstede (2001) defines culture as the collective programming of the mind which distinguishes members of one group or category of people from another. According to Hofstede, one’s mental programs lie within the social environment in which one grew up and within the life experiences one has gathered known as one’s culture. The understanding and the effects of culture therefore can only be relevant when the meaning is narrowed

down to manageable proportions. Indeed, it is the cutting down to size of the culture concept that has ensured its continued importance in theory development, especially as environment is said to guide one's decisions by setting the preconditions for one's behavior (Bimberg & Snodgrass, 1988; Perera, 1989). Although cultural theory focuses on a direct articulation between the personality of the individual and the structure of the social system (Parsons, 1991), it is not sufficient to develop and present a cultural theory, unless such a theory is aimed at explaining certain phenomena (Geertz, 1993). An explicit meaning and implications of cultural theory must seek to explicate the native actors and understand their actions to determine its message about the working of a particular society. (Geertz, 1973; Edgar & Peter, 2002).

Schwartz (1999) opines that cultural value theory must be capable of understanding and explaining existing problems and provide guides as to their solution. For argument sake, the theory can only be achieved through the novel line of interpreting the phenomenon and explicating its virtues, since culture and social structure are different abstractions of the same phenomenon (Geertz, 1993). Other researchers such as Trompennar (1993), Hofstede (2001), Smith (2001), and Smith et al. (2002) have put forth related positions. For instance, Hofstede (1991) posits that "values are broad tendencies to prefer certain states of affairs over others", and these are reflected in the societal norms and behaviours of people living in the same society or nation, which lead to a sequence of reactions to daily life events and situations, whether personal or institutional (Hofstede 1991 p. 19).

Despite the criticisms about the concepts and theories of culture within the organizational field, Wong and Birnbaum-More (1994) are of the opinion that Hofstede's cultural dimensions of power distance and uncertainty avoidance were still relevant. As argued by Schein (2004), it is because there is yet to be a universal point of view or methodology on the theoretical development of culture, but rather impressive ideas and approaches drawn from social psychologists.

Culture determines, in part, the types of communication humans engage in and the appropriateness of models used. Many models evolve into social institutions with strong social effects and act within the cultural context to reinforce existing values, norms, or practices while at the same time introducing the potential for change. Many problems of communication are linked to problems of communities in which people live. It is not enough to attempt to censor or prohibit communication, but it is necessary to create the type of environment compatible with the dominant ideology of technology of mass media if it is to be used effectively (Hanson & Narula, 1990).

Communication, in a cultural context, whether interpersonal or mediated communication, is presented, received, reacted, and acted upon. To paraphrase technical jargon, a "signal of compliance" must be given to indicate that a message has been received. There will always be three major actors involved in a communication/cultural context in developing countries: the government, media community, and the people (Hanson & Narula, 1990).

The effectiveness of a particular technology depends on the dominant cultural ideology. For example, in a country like India, the cultural ideology toward technology is decidedly pro-social, and the application favours the medium of television as a purveyor of the ideology. As a result, more efforts are made to develop TV technology rather than other technologies that do not enhance cultural goals. In the United States, the cultural ideology of labour-saving devices (such as the computer) indicates that there may be more flexibility and incentive to produce more computer technologies that enable television to experience growth and development (Hanson & Narula, 1990).

In this study, the culture of communication in governance is identified as providing a unique opportunity to understand failures in the communication industry, particularly in Nigeria.

## 2.5 Summary

The literature covered in this chapter revolves around relevant philosophical theories of the 20th century that have great resonance for today's communication. The chapter showed clearly the abstract concepts of oratory, rhetoric and eloquence which are essential elements of communication as posited by Socrates Plato, Aristotle, and Machiavelli *vis-a-vis* governance. Weber's regulation and bureaucracy underpins communication in government policies; Foucault's theory of history, rhetoric and discourse reveals the moral connectivity in discourse, history, and governance.

The chapter reviewed vital literature in communication and the contributions that communication's effective use can make to development. The philosophical principles underpinning the resources, channels, and approaches to governance to realising the goals of socio-economic, political, and cultural development were highlighted to help the empirical findings. It is abundantly clear, therefore, that the process of communication and governance for development requires strategic planning, using relevant communication recourses in the design of the programme for development goals. Hence, the process calls for the involvement of people and community in exchange of efforts (Boafo, 2006).

Ascroft and Masilela (1994) note that in the African context, just as elsewhere, collective interactive sessions and participatory discussions translate into individuals being directly or indirectly contributory to development programmes and processes, through ideas and initiatives that articulate their needs and problems while asserting their autonomy.

The linkage between the abstract philosophical foundation in communication and the related theories in the next chapter will explain and further account for the relevance and the governing concepts that provide "a kind of adhesive that brings together the subject and object which allows the observer to look closely and learn from the whole process of



thought and discover activity” (Howell, 2013, p.23) in the entire discourse of communication in abstraction and governance in application.

## **CHAPTER THREE-CASE STUDY LITERATURE REVIEW**

### **3.1 Introduction**

In order to provide an explanation for modern communication in governance, the previous chapter attempted to draw the relevance in communication from the philosophical antecedents of Socrates's Plato's and Aristotle's thoughts on rhetoric and persuasive communication. The chapter dealt broadly with the philosophical concepts and theories involved in communication and governance. It also highlighted the relevance of theories and practices, with particular emphasis on Machiavelli and on Weber's thoughts on law and bureaucracy in administrative management, both of whose work interlinks with issues regarding problems associated with the communication industries in Nigeria. Foucault's theory of history and discourse, on the other hand, demonstrates the archaeology of thought as loosely linked to today's literary idea that language remains a source of reason in its right and not merely an instrument of expressing the ideas of the user.

This chapter will also attempt to link the concepts of communication in pursuit of advances in governance practice. It will identify the belittling problems associated with the management of the communication industry in Nigeria.

The first section is an overview of global communication, with a focus on the global liberalisation of communication market, which will further examine ICT in the developing world and sub-Saharan Africa and Nigeria. The chapter concludes with reflections on communication contents and impacts in Nigeria.

### **3.2 Communication and Cultural Effects in Nigeria**

Communication and its influence on culture has impacted the developing world in many ways, just like in other places around the world. This has by every means affected the way that information is being processed and how ICT tools have impacted governance structures in Nigeria - the central focus of this thesis. The importance of communication and ICT to countries' economic growth helps to explain the particularities of their communication in governance (Ungureanu, 2008).

Moreover, various partner and government agencies play significant roles in development of infrastructure in Nigeria.

In the study of cultural impact in Nigeria carried out by the Foreign Affairs and International Trade Canada (2014), it was highlighted that the ethno-religious and political composition of Nigeria sometimes affects the way people communicate, formally or informally. It depends on how well one knows the person with whom one is speaking or how familiar one is with that person; the standard is similar to greetings in the western world, such as having a hand shake with an arm's length. Nigerians have incorporated ICT behaviour into a customary pattern of social interaction that privileges sharing, gift exchange, and reciprocity over the impersonal aspects of monetary transactions (Guyer, 1995; Olivier de Sardan, 1999; Smith, 2001a). A good deal of cell phone-related behavior requires a social rather than an economic interpretation.

Communication is an integral organisational activity. Due to the globalisation and liberalisation of economic reforms, organisations' human capacity needs to be acquainted with the various transformations. This is achieved through close and effective interaction with the employees. Hence, communication and individual performance in the work place need to be understood as co-dependent. Research in the Lagos region of Nigeria has revealed that there are significant connections among parameters such as communication skills, workplace performance, productivity and performance (Femi, 2014). In the particular case of Nigeria cultural relativism remain a barrier to communication governance such as those due to language, belief systems and traditions. This however, should also be contextualised as germane to growth and development.

In Nigeria, indigenous/traditional community communication models/channels tend to exhibit cultural region variations. As a matter of fact, communication models/channels reflect the social stratification of individual communities. These social structures are determined by historical and economical experiences' totality with respect to individual cultures (Cooper et al; 2002). However, this is limited to non-technology dependent modes of communication. Notwithstanding this, the cultural norms have been accorded values and mystified by indigenous/traditional

channels of interpersonal/group communication, primarily based on age, marital status, gender, kinship and authority patterns that are embedded on social structure. These have been proven useful in solving communication problems.

Traditional/indigenous communication in Nigeria has a unique and not easily understandable network. As a matter of fact, it has been argued that it is difficult to comprehend cultural communication networks through externally inflicted philosophies/concepts. These networks can provide the premise for ICT penetration in rural areas. It has been noted that in cultural/rural settings communication is initiated by the need for people to share meanings, intentions, thoughts, expectations and actions. In village settings, these communication networks are well founded, stable and linked from village to village. Additionally, in such environments, group interests override individual interests. Such communication networks identify actions through a series of coordinated actions performed by individuals. Furthermore, such communication networks are non-reliant on complex structures and technological solutions that are yet to fully penetrate the rural areas.

### **3.3 ICT and impacts**

This section gives an overview of the importance of ICT, with its increasing challenges in the developing economies, especially in Africa.

The information society is a broad concept that has been used since the 1970s to refer to the growing centrality to social and economic development of equipment, techniques, and know-how initially referred to as information technology (IT). This is associated with the convergence of computers, telecommunications, and management science techniques and highlights the increasingly pivotal role that electronic technologies play in the way individuals live, work, travel, and entertain themselves. Since the 1990s, information society researchers have often added “communication” to the term (from IT to ICT) to reflect the centrality of communication and networking issues, such as those stimulated by the diffusion of the Internet and the World Wide Web (Barabasi, 2002; Castells, 2000).

There is widespread research interest in ICTs. Crede and Mansell (1998) argue that

ICTs are essential development apparatuses in developing countries. According to Thioune (2003), in the last 17 years most developing countries have undergone several transformations traceable to ICTs. These multi-sectoral growths have been visible in almost all aspects of life, be it in economics, education, communication, or travel. Thioune (2003) points out that many initiatives were taken at the international level to support Africa's efforts in developing communication infrastructure. These efforts were designed to enable African countries, including Nigeria, to find faster ways in achieving durable and sustainable development.

Technological changes have influenced human lives in recent years, with ICT impacting humanity the greatest. This will, however, continue at least until the end of the first half of the 21st century, when other major technological breakthroughs in the area of new materials, biotechnology, or energy may provide a completely new world and ways of living (Akpore, 1999).

An information-driven society is one that makes the best possible use of ICTs. Martin (1988) associates such a society with high quality of life as well as one that offers prospects for social change. Economic development will depend increasingly upon information and its exploitation. Living standards, patterns of work and leisure, the education system, and the marketplace are all influenced by advances in information and knowledge in ICT; this is evidenced by an increasing array of information-intensive products and services (Martin, 1988).

Annan (2002) notes that the information society is a way for human capacity to be expanded, nourished, and liberated by giving people access to tools and technologies, with the education and training to use them effectively. There is a unique opportunity to connect and assist those living in the poorest and most isolated regions of the world. Informatisation of society is a major hurdle that most nations, especially developing countries, are encountering. The information society or information age is a phenomenon that began after 1950, which brings challenges as societies seek to integrate and expand the universe of print and multimedia sources. These two terms are often used to describe a cybernetic society in which there is a great dependence on the use of computers and data transmission linkages to generate and transmit information (Bruce, 1995).

The ICT related developments in Nigeria are visible in almost all sectors of the economy, and the impacts are glaring in the growth of the small and medium scale enterprises in the region of West Africa. Studies have explored the extent of impacts of ICT in the productive and service-oriented sectors of the economy, and also the avenues to improve or expand services offered by the internet provider for business purposes. Focused efforts in broadening the range of SME's awareness of the benefits of adopting ICT, coupled with adequate access to it, have also been explored, but further sustained attempts are required. At present, such levels are lower than desired with significant impediments such as lack of independent and financial resources, inadequate infrastructure and personal considerations of the enterprise owners. Hence, efforts at reducing the price of ICT, and attention on parameters such as access, training and feasibility need to be examined (Akomea-Bonsu and Sampong, 2012).

The African Information Society (AISi) (2006) states that Africa should build by the year 2010, an information society in which every man, woman, child, village, and public or private sector office will have secured access to the use of computers and telecommunications media. The objective is to provide every African with the possibility of using the communication and data processing services available everywhere else, just like any other citizens of the world.

### **3.3.1 ICT for Informing Citizens**

This is one identified area through which the world has continued to experience change in technology. In the business of trying to make information available at the right time and in the right form for users both at personal and organisational levels, and from the great flood of information triggered by sophisticated methods of handling information faster and better, ICT will continue to experience changes.

According to Anyakoha (1991), information technology is "the use of man-made tools for the collection, generation, communication, recording, re-management and exploitation of information. It includes those applications and commodities, by which information is transferred, recorded, edited, stored, manipulated or disseminated" (Anyakoha 1991, p.106-108). Hawkrige (1983) describes information technology as

a revolution which has penetrated almost all fields of human activity, thus transforming economic and social life. The United Nations Development Program (UNDP) (2001) asserts that even if sustainable economic growth facilitates the creation and diffusion of useful innovations, technology is not only the result of growth but can be used to support growth and development (Ogbomo and Ogbomo, 2008). ICTs are credited with the ability to transform the global community and bring about significant changes in the whole of sub-Saharan Africa. From this standpoint, Africans can take maximum advantage of the new technologies even if major challenges remain. These challenges include adapting ICTs to local conditions and uses in developing countries and allowing each country to understand those innovations and adjust them to their own development needs.

Therefore, development in Nigeria will depend on the country's capacity to create wealth to significantly reduce poverty and to raise its capacity to create wealth at a sustainable level. In June 1996, the United Nations Commission on Science and Technology Development (UNCSTD), in collaboration with The International Development Research Centre (IDRC), proposed five development indicators that focused on the improvement of the quality of life: education, health, income, governance, and technology (Crede & Mansell, 1998). If these five key indicators are mainstreamed into the development agenda, then ICTs can be socially beneficial, especially if they contribute to poverty eradication (higher income), improved health and education, better use and more equitable sharing of resources, and increased participation in the decision-making processes (and in this regard, access to information is crucial).

ICTs have been of immense contribution to human development for many decades, and this has driven humanity to continuously seek ways to improve the processing of information and communicating such information to one another regardless of distance and on a real-time basis (Ndukwe, 2002). Surviving in the information age depends on access to national and global information networks. ICTs are the bedrock for the survival and development of any nation in a rapidly changing global environment, and it challenges societies to devise initiatives to address a host of issues such as reliable infrastructure, skilled human resources, open government, and other essential issues of capacity building (Federal Republic of Nigeria, 2001).

At the heart of this technology lie two main branches: computing and telecommunication. The technologies included are the computer system, Internet/electronic mail (email), mobile phone, and fax machine.

### **3.4 Global Liberalisation of Communication**

The twin forces of privatisation and liberalisation of the communication industry across the globe in the past two decades crumbled the foundations of incumbent telephone operators, leading to the introduction of a new era in digital connectivity for millions of consumers in developing countries (World Bank, ICD 2005) *Privatisation* (the transfer from government to private ownership) began with the sale of shares in British Telecommunications in 1984 and Nippon Telephone and Telegraph in 1985 and spread to over 80 developing countries by 2003 (Megginson & Netter, 2001). *Liberalization* (the transition from monopoly to competition) witnessed an equally dramatic impact. For instance, markets for fixed local and international telephone services in developing countries were opened to competition in about 130 countries with at least three competing providers of mobile services (Ure & Vivorakij, 1996). As a result of privatisation and liberalisation, foreign investors poured over \$194 billion into telecommunications infrastructure projects in 122 developing countries between 1990 and 2003 (“Global Trends and Policies”, 2006). This hugely significant transformation is as a result of the Information and Communications for Development as documented in a report, *2006: Global trends and Policies*, issued by the World Bank.

With the opening of markets due to privatisation and liberalisation, foreign private investment flowed into developing countries. These investments account for a significant portion of total investment in the telecommunications sector in the developing countries, namely 30 percent, from 1990 to 2003 (World Bank, 2003).

Several trends are worth noting: The annual level of investment averaged \$5.2 billion, from 1990 to 1995, rose sharply to \$23 billion from 1996 to 2000, and then dropped to \$16.5 billion from 2001 to 2003. Notably, even after the end of the boom in 2001,



investment levels remained significantly higher than before 1996. This was as a result of the massive growth in the mobile sector (World Bank, 2003).

Communication has had a profound political, economic, and sociological impact on nations of the world, particularly in the rearrangement of power relations among key message providers and receivers, the transformation of the cultures of political journalism, the problematisation of conventional understandings of democracy and citizenship, and the “medicalisation” of global politics (Blumler & Kavanagh, 1999; Castells, 2000; Edwards, 2001; Luhmann, 2000; Meyer, 2002). A crucial part of this new terrain is the growing professionalization of political advocacy and advice, as governments, political parties, and political actors have become engrossed in the imperatives of professional communication.

The earlier focus in communication was on informing and persuading the public as in the days of the “thinkers.” Now, the prime emphasis is on media management, the cultivation of media image, and the ongoing monitoring of diverse audience (constituency) sentiment. Indeed, there is increasing recognition among government, opposition parties, non-governmental organisations, pressure groups, and business that effective participation in the political game requires professional communication and advocacy management (Johnson, 2001; Mancini, 1999; Morris, 1999; Negrine & Lilleker, 2002; Novotny, 2000).

### **3.5 ICT impacting the developing world**

According to Heeks (2008), “By late 2000 the phase has changed from information and communication technologies for international development (ICT4D) 1.0 to information and communication technology for international Development (ICT4D) 2.0, which presents opportunities for informatics professionals and offers new markets for ICT vendors. It also brings new challenges to established methods of working and emphasises the need for new expertise and new worldviews. Harnessing digital technologies in the service of some of our world’s most severe problems requires understanding these changes” (p. 26).

The strides made in ICT and related fields has become a significant parameter for

measuring the level of growth and development by nations. In areas where ICT has been accepted as a tool for governance and development, the removal of impediments for large-scale implementation becomes the next organic objective towards which effort must be directed. In such a scenario, some critical barriers to active development have been identified, such as the absence of sufficient physical and internet services related infrastructure, the deficiency in industry trained staff and accessibility constraints, due to the lack of relevant technology in a variety of languages (Touray, Salminen and Mursu, 2013). However, the aforementioned research study did not identify all possible parameters that hamper the implementation and growth of ICT in the developing part of the world.

In developing nations, the problem of ICT uptake is further compounded by the lack of local expertise and decades of well-meaning but non-sustainable ICT projects, which left a legacy of scepticism in their wake. For example, systems built for westernized health care delivery often do not match the local context, resulting in a misalignment between need and technology. Poverty and illiteracy in developing nations stand as major barriers to the adoption and sustainability of information technologies, and many believe it is difficult to make a case for ICT when basic needs for survival are barely being met (Megginson & Netter, 2001) (Abbott, 2007). The *e-health paradox* is a term coined by Liaw and Humphreys (2006) to refer to this seeming conundrum. Populations that could have the most to gain from ICT in health are those who are thwarted in their use as a result of untrained workers, poor infrastructure, and lack of resources. Issues such as these have fueled technological apartheid and continue to subvert the delivery of knowledge to areas of the globe that most desperately need it (Abbott, 2007).

Equating the poor in developing countries with illiteracy is a common error. Adult literacy, even in the world's neediest countries, is still greater than 50 percent, and two-thirds of 15- to 24-year-olds are literate (Shaw, 2004). Effectively, every society will have at least some learned members who can act as infomediaries, thus enormously multiplying the accessibility of written materials, online or otherwise. However, societies require interface innovation to drive access to ICT-based information, services, and jobs in the fields of audiovisual boundaries and to create interfaces for all local languages. Even if the past and future innovations can provide

access to ICT for most of the world, the hardware-plus-interface arrangement remains an empty husk. When filled with applications software, however, that husk can play four main development roles: data content handler, collaborative communicator, service deliverer, and productive tool. These functions form a sort of chronology that ICT4D has moved slowly toward closing the gap between supply and demand (Heeks, 2008).

### **3.6 ICT in sub-Saharan Africa**

Different ICTs appeared in Africa at various points and in varying degrees. The computer was the forerunner to modern ICTs, with many countries and industries automating their processes incrementally in the 1980s (Mayer-Schönberger & Lazer, 2007; Obijiofor & Green, 2001). By the 1990s, Internet connectivity had also taken hold with the first recorded access occurring in Makerere University in Kampala, Uganda (Akpan-Obong et al., 2009; UNECA, 2009). Internet diffusion was accelerated by the 1996 African Information Society Initiative (AISII) under the auspices of the United Nations Economic Commission for Africa (UNECA). The AISII mandated African states to formulate policies consistent with the global information society (Adeya, 2001; UNECA, 1996). This translated into deregulation as well as necessitated policy development for the Internet sector. For the first time, licenses were granted for provision of telephone services to private telecom operators in many countries.

While Internet connectivity occurred earlier on the continent, its expansion has been sluggish compared to that of mobile telephony (Sutherland, 2007). However, the ubiquity of shared accounts, along with relatively high use of public access services such as telecentres and cybercafé made it difficult for organizations such as the ITU to accurately account for the total number of Internet users therefore understating Internet diffusion (Jensen, 2003, p. 89). Mobile telephony gained ground for three main reasons. First, the kind of infrastructure (for example, electricity) required by the Internet is poorly developed. Moreover, mobile telephony is not capital-intensive and utilises more scalable technology, although cellular base stations often involve the provision of a generator for electrical power, which substantially increases the cost of deployment. Internet access was achieved initially through store-and-forward systems on platforms such as UUNet, Fido Net, and Bitnet (Adeya, 2001).

Research centred in South Africa indicated that while the ICT sector continues to see growth, its extent remains limited and has not achieved its aim of securing affordable egalitarian access to services across the breadth of the population. The reasons narrowed down for this hampered growth have been identified as the low levels of access to broadband services when compared to the accessibility levels in other low-income countries, and higher ICT and other services cost as compared to other developing parts of the world (Gillwald, Moyo and Stork, 2013). Furthermore, the extent of ICT interventions in such sector areas like agriculture particularly beyond the urban spaces remain limited; even though ICT can be instrumental in playing an essential role in enhancing the existing levels of rural and agricultural development in the region.

### **3.7 Information and Communication Technology (ICT) and Impacts in Nigeria**

Nigeria, like many other African countries in the last century, was liberated from colonialism but continued to experience political instability, desertification, military dictatorship and all forms of natural and human calamities. However, the new trend in ICT in the country in the last 17 years has positively impacted governance with regards to development (Hanson, 1990; Narula & Pearce, 1986).

For decades, the scientific industry played increasingly and important role in the national development. Science-based companies developed the economy through research by providing information in the areas that were already researched and new areas that could be researched. In this sense, the production, management and dissemination of scientific data and information become very critical for scientific knowledge (Oddoye, 1979).

In the view of Olaniyi (2006), ICT, knowledge, and information accelerate transfer and cross-fertilize necessary information in real time, hence creating the need to pay attention to the way information technology is used in the governance and education systems. Electronoic-learning popularly termed “E”-learning”, for example, has been one of the educational challenges of the modern age.

Awe (2010) opines that there were more than 200 registered companies in Nigeria, offering a broad range of computer related services, most of which were set up between 1977 and 1982 to take advantage of the indigenisation decree and the then prevailing economic boom. A partial survey conducted in 1986, involving 47 computer companies, showed that 88 percent of these were vendors, 79 percent were consultants, 70 percent offered training services, and 68 percent had maintenance facilities, while 45 percent offered bureau services (Awe, 2010).

The development of information technology in Nigeria has brought about the creation of information at a higher rate. The dramatic acceleration in the global development and use of information and communication technology (ICT) during the last 17 years set in motion a worldwide process of transition from the "industrial to the information society" (Alemna, 2000; Griffith, 1980).

In Nigeria, much of the growth in telecommunications has been in the mobile sector. For example, the number of mobile subscribers soared from 370,000 in 2001 to 16.8 million in 2005 ("Global Trends and Policies", 2006). The Internet allows an unimaginable and unparalleled interaction and transactions to the banks linked to the Web. Most banks in Nigeria are now Internet-connected, improving their goals of generating new ideas, new product lines and growing markets. Beginning as a new tool for communications and information, the Internet has suddenly transformed into a thread of learning and transactions (Salman et al., 2011, Ekanem, 2003).

However, considerable avenues for growth in ICT remain unexplored, particularly in the government owned universities in the country, which are yet to introduce ICT related developments. The primary factors behind this hampered execution are listed as the prevalence of corrupt officials in the systems, lack of efficient and regular energy resources, poor internet services, lack of support and trained staff, bad physical infrastructure, and the lack of policies and regulations introduced from the government. Existing research indicates the need for thorough identification of these challenges and for stakeholders such as the university management and government organisations to endorse and create an environment conducive for ICT implementation (Irefin, Azeez and Tijani, 2012).

### **3.7.1 Global Partnership for Development**

According to Matoksi (2004), ICTs have great potential to help bridge the information gap between developed and developing countries. Uhegbu and Igwe (2006) assert that libraries, whether school, university, or public, now have greater responsibilities in the development of a global partnership for development by acquiring, packaging, organising, and disseminating knowledge and experience to Nigerians. Global partnerships include the ability for all to access and contribute information, ideas, and knowledge essential in an inclusive information society. By enabling access to information in all formats across geographical, cultural, linguistic, and political frontiers, libraries continue to foster understanding and communication, and this brings together some of the ideas for global development (Forsyth, 2005).

### **3.7.2 Network operators**

The Nigeria Federal government ensured that network operators were committed to infrastructural development, and has spent over \$6 billion on infrastructure as from 2013, including a \$3 billion syndicate loan facility extended to major telecoms operators, which is the biggest financial deal in the sub-Saharan Africa communications sector (Okonji, 2013). However, telecoms investments have been hampered by increasing incidences and values of taxes and levies requested by various states, coupled with delays in obtaining approval to build base stations (Johnson, 2013).

### **3.7.3 Measures to connect Nigeria to Broadband Infrastructure**

Efforts made to connect Nigeria to information technology allowed for the provision of an ubiquitous broadband infrastructure. The country provided access to infrastructure and device ownership to promote inclusive development, local content, innovation and job creation, thereby adding value to local industry and indeed promoting ICT in government activities. The connection thus facilitates e-government to ensure transparency, efficiency, and productivity in governance and between government and citizens. This has, by extension, created the enabling environment that supports the development of the Nigerian ICT sector (Johnson, 2013).

Okonji (2013) notes that the minister of communication and technology stated in 2013 that the Federal Government of Nigeria selected ten teams of software developers that would be at the Information Technology Developers Entrepreneurship

Accelerator (IDEA) center in Lagos, which is a software incubation center, where they would receive skills training in software development as well as business training on how to market their products cited in (Johnson, 2013). The government also embarked on free training exercises with the expectation that at the end of the training exercises, some of the personnel trained would acquire skills on how to develop software that would drive businesses in Nigeria and would be able to export such software to other countries. The initiative was aimed at raising standards and building confidence in locally developed software from Nigeria.

Johnson (2013) indicates that the government strived to achieve a more comprehensive and integrated use of ICT in government to provide better response to citizens' demands, improve service delivery, and make government administration more efficient by enhancing enabling environment to ensure that the broadband strategy and roadmap were successfully rolled out. The government through the Ministry of Trade and Investment created an attractive environment for possible investors, industry partners, including active core investors and industry partners. The government also expanded its use of ICTs to increase efficiency and effectiveness in governance and improve the use of hybrid power by network operators, aimed at reducing dependency on diesel generators in powering base stations.

According to Johnson (2013), ICTs, today play a crucial role in national development. It is the bedrock of development, and the leveraging of ICT tools helps in creating wealth, jobs and enables development at all levels in whatever sector-health, agriculture, education, transport; among others. With the ICT industry growing at an average of 30 percent annually for the last two years, making it one of the fastest growing sectors in the Nigerian economy, no doubt ICTs to a very large extent are sure to help Nigeria achieve its Vision 2020 targets (an initiative which translates to an agenda to place Nigeria in the year 2020 among the leading twenty global economies).

### **3.7.4 Networks and partnerships**

According to Shand (2013), networks and partnerships are meant for solution of problems, exchange of resources, cooperation, coordination, and building of coalitions. Such relations can both be long-term or short-term and include a range of bodies: local, international, government, NGOs, and community groups, among others. They converge institutional and individual capabilities in dealing with typical problems. As a result, such networks and partnerships are largely dependent on communication. Interestingly, vast research literature that explores partnerships between government and community-based agencies are more descriptive than reflective. As a matter of fact, Larner and Butler (2003) state that “...it is widely acknowledged that the international literature on partnerships is characterised by ‘methodological anarchy and definitional chaos’ (Shand 2013, p. 86).

Further, Shand (2013) notes that networks and partnership help in keeping communication costs low for participants. In addition, they bring aboard a blend of varied cultures and needs as well as goals that promote interaction between participants securing a consensus on behalf of all. Yet networks and partnerships allow participants’ contributions in many different areas, facilitating efficiency in participant communication. Additionally, Shand (2013) notes that trust is an important recipe for successful networks. There is an assumption that time, communication, and network/partner relationships encourage trust.

Development of ICT assists firms to efficiently integrate into the global market. Globally, the development of ICT is increasingly considered to be an important factor influencing economic growth (Tcheng et al., 2007).

### **3.8 Summary**

The case study literature chapter captured ICT and governance at the global level and also examined its impacts in the sub-sahara Africa and Nigeria, the focus of the research. It provided a historical summary of ICT and the roles it plays in governance at the national, regional and global levels with interest on the political, socio, economic and cultural contributions to good governance. Visualising its impression worldwide, it pontificated liberalisation and privatisation as the roots of the ICT



industry and suggested that these dual forces ended the existing dominance of telephone operators and commenced the new era in digital connectivity for millions of users in the developed and developing nations of the world. It further, highlighted the challenges of its effective use as a new technology whose benefits is largely measured in the availability and accessibility of softwares, hardwares, and infrastructure and communication networks.

The chapter also mirrored on the influences Information and Communication Technology (ICT) has on Nigeria with emphases on the nation's global partnership for development and the activities of the network operators who are the service providers of the telecommunication and the internet services across the country; as the services were implemented at grassroot levels through broadband connectivity. These services, thus, affected almost all facets of the political, social, economic, and cultural lives of the whole region of Africa and most developing countries.

The chapter also identified the negative and positive influences of ICT in the cultural lives of the people of Nigeria. The limited access to infrastructural facilities, such as electricity proved to be a great hindrance to the optimal benefits to internet and bandwidth service provision. With the case study literature review, we now have a broad and global understanding of the state of ICT development which therefore provides a background for the next chapter of the research process; method and methodology while setting the framework for data collection and analysis.

## **PART II : RESEARCH METHOD AND METHODOLOGY**

### **CHAPTER FOUR: RESEARCH METHOD AND METHODOLOGY**

#### **4.1 Introduction**

The chapter describes the research methods and the methodology that were strategic to the data collection and analysis. It discusses the research design, paradigms of inquiry, and the approaches and main strategies integral to the findings. Thus, the chapter will look at quantitative research instruments such as questionnaires and qualitative approaches such as interviews, focus groups, and documentary materials, which are secondary sources of evidence. The chapter also deals with the methodology of ethnography, as well as hermeneutics, the study of meanings and interpretation. These methods and tools will be beneficial to generating the theoretical model inductively derived from the data.

The speed of change in all human endeavour caused by the new communications technologies is terrifying. It will be many decades before the full impact of this change on society is fully understood. It is clear, however, that, as with all new structures, the time for determining the use of these technologies is short (Johnston, 1998), while the value continues to grow.

It is, therefore, unarguably true that mobile communications and ICT since year 2000 have generally undergone many important transformation, both in terms of platforms, usage and understanding (Haddon, 2006; Silverstone, 2006). As has been documented in the case study literature review, development studies span a wide range of issues in the area, but less attention has been paid to the impacts of these modern communication tools to human activity in Nigeria, hence, this research. Achieving the research aims of this study calls for a balanced quantitative and qualitative strategy that will allow an inductive outcome that may turn deductive as the research develops. The rationale for the balance between the method and methodology will depend on the objectives of the research and the extent to which qualitative or quantitative techniques are utilised (Howell, 2012). In realising in-depth findings, it is important to note that fundamental philosophies support research methodologies, and

research methodologies must fit with the fundamental philosophies of the research (Quinlan, 2011).

Theories on the use of ICT can be classified into two categories: firstly, the rational component, and secondly, the social component of the choice of technological media. Generally, the debate on the determinants of the choice of communication process and the explanatory power of various theories of wealth, media and total relationship management (TRM) are dependent on the model of social influence of management information systems (MIS) (Fulk and Boyd, 1991, Markus, 1994; Webster and Trevino, 1995). The model of social influence, therefore, focuses its attention on the social determinants of the choice or means of communication (Fulk, Schmitz and Steinfield, 1990). Very often these theories are opposed to each other and rarely considered as complementary approaches. Rice et al. (1994) suggest that the dichotomy between the rational and social influences is artificial and may not be necessary. Many studies, however, examine a small number of influences, usually from one or the other approach (Rice, 1992; Sitkin et al., 1992). Studies combining the two approaches are much seldom (Webster and Trevino, 1995).

#### **4.1.1 Qualitative and Quantitative Research Design**

A research design is simply “a process regarding plans and procedures for the research that span the decisions from broad assumptions to detailed methods of data collection and analysis” (Creswell, 2009, p.3). This involves perceiving a problem and writing research questions and proceeds to data collection, analysis, interpretation and report writing (Bogdan & Taylor, 1975). In all, five sequential steps are taken when selecting a research design (Denzin & Lincoln, 1994). The first step is the location of the field of inquiry regarding either using a qualitative or a quantitative research approach. The Second is the selection of a theoretical research paradigm capable of informing and guiding the research process. The third step is relation of the identified research paradigm to the empirical world through a methodology; the fourth is selection of the data collection methods. The fifth and last step is the selection of the technique to be used for the analysis.

Qualitative research again means different things to different people (Strauss &

Corbin, 1998). It refers to the “assumptions and the use of interpretive/theoretical frameworks that inform the study of research problems addressing the interpretation individuals or groups ascribe to a social or human problem” (Creswell, 2013, p.44). Indeed, qualitative research has been more broadly defined as follows:

a situated activity that locates the observer in the world. Qualitative research consists of a set of interpretive, material practices that make the world visible. These practices transform the world. They turn the world into a series of representations, including field notes, interviews, conversations, photographs, recordings, and memos to the self. At this level, qualitative research involves an interpretive, naturalistic approach to the world (Denzin and Lincoln, 2011, p.3).

This means that qualitative researchers observe things in their natural environment, trying to make sense of or appraise phenomena in terms of the understanding people bring to them.

Although the characteristics of qualitative research have evolved over time, Creswell (2013) argues that all forms of qualitative research involve the following common characteristics: “occurring within a given natural setting, complex reasoning through inductive and deductive logic, accepts multiple forms of data methods, allows researchers to reflect on their background and how it informs their interpretation of the information and what they gain from the study. It also involves holistically reporting multiple perspectives and the factors involved in a situation, and fundamentally the emergent design of the research processes” (p. 44).

As stated in Chapter 1, the main interest in the thesis is to attempt to uncover the nature of the phenomenon underlying communication in governance, examining the impacts of communication in the infrastructural developments in Nigeria and also assessing the importance of ICT in governance activities in Nigeria. It also aims to examine the problems facing the sector and suggesting solutions. With this in mind, designing the quantitative and qualitative research for the thesis commences with the identification of the paradigm of inquiry as an approach to the research strategy, laying a foundation to the choice of an appropriate methodological approach and the justification.

#### **4.1.2 Research Design: Explorative – Descriptive, Research Design**

According to De-Marraais and Lapan (2004), the research design is a structure, strategy, and plan of investigation formed to obtain answers to the problems and queries of research. This study followed an exploratory research design and employed descriptive research design. According to Bryman, Stephen and Campo (1996), exploratory research is always conducted to explore the problem and is done usually when the alternative choices have not been defined clearly or their scope is unclear. Exploratory research design is often conducted when decision makers sense a requirement for marketing research but are not sure of particular direction the research must take.

The study adapts descriptive research design. According to Barzelay and Michael (1993), descriptive research design can be quantitative, but because of the wide nature of case study itself, it is always used as a qualitative research method. Because the research in this thesis adapted qualitative methodology and quantitative by survey as complementary, it is descriptive in nature. In addition, the researcher adapted descriptive research to identify roles and benefits of ICT, to explore the impact of ICT adoption in public governance to identify challenges and problems in the Nigeria communication sector, and to proffer solutions to the problems facing the communication industry in Nigeria.

#### **4.1.3 Paradigms of Inquiry**

A paradigm is a concept commonly used to distinguish schools of thought with emphasises on their differences, which are not based on assumptions. These schools cannot be compared; they do not speak the same language, they do not inhabit the same world, they are immeasurable. It is from the Greek and was introduced into the English language 500 years ago. The word *paradigm*, according to Larochelle (1998), is a pattern, a gold exemplar model. Thomas S. Kuhn is behind the concept as used today. Kuhn (1983) uses this term to account for the life of the physical sciences and in particular the succession of frameworks within which a research activity is conducted at a given time for a given discipline. Howell (2013) argues that a paradigm involves a framework of ideas, procedures, and outcomes within which a piece of work is structured. Unlike the scientific method, a paradigm is flexible and moves away from the rigidity of positivism.

The term paradigm first features in Kuhn's (1962) interpretation of the historical development and formation of science, which failed, accidentally, to provide an unambiguous explanation. At various points in his work, Kuhn defines a paradigm as "[a] strong network of commitments - conceptual, theoretical, instrumental and methodological" (1962, p.42), and later he reframes the concept as "an entire constellation of beliefs, values, techniques...shared by a given scientific community" (1996, p.175). For Guba and Lincoln (1994), a paradigm is 'the basic belief system or worldview that guides the investigator, not only in choices of method but ontologically and epistemologically fundamental ways' (p. 105). It also "involves a framework of ideas, procedures and results within which a piece of work is structured" (Howell, 2013, p.223). He says paradigm of inquiry is the philosophical framework that largely determines how a researcher designs and conducts an inquiry in the research process (Howell, 2013). There are many types of inquiry paradigms or philosophical assumptions that have been developed and used in research projects over time, including positivism, social constructivism, advocacy/participatory, critical theory, realism, interpretivism, and pragmatism. These philosophical assumptions can be applied within the subjectivist (qualitative research design) or the objectivist (quantitative research design) approach or in their combination. The option of assumptions underlies what constitutes "valid" research and the choice of suitable methods.

#### **4.1.4 The notions of reality, knowledge, and truth**

##### **4.1.4.1 Reality**

Reality exists independently of the human, through an experience. An important concept in philosophy, reality is how things exist - how they are and not how they are purported. Reality is concerned with beliefs, perceptions, and attitudes. However, there is no proof that reality "works;" for instance, objective reality is seen through an individuals' inner sieve (Phillips & Burbules, 2000). Many philosophical issues make reference to the truth, either directly or by inference (Lincoln and Guba, 2000). Reality as it relates to knowledge can be totally separated from the constructivists' view point (Howell, 2013). Positivist perspectives of reality differ from the phenomenological notion of reality in the sense that the positivists consider reality as totally independent of humans, while the latter view them to be intrinsically linked (Howell, 2013).

#### **4.1.4.2 Knowledge**

Knowledge incorporates the stock of explanation and understanding of why reality, truth, and theory reflect the way they are; it involves the interpretation of facts derived from data as well as abstract comprehension of phenomena (Howell, 2013). Knowledge is a representation of how facts, truths, and principles are acquired. Popper (1979) states that human knowledge grows through trial and error.

If the traditional analysis of knowledge is correct, belief is a necessary condition for knowledge (Moser et al., 1998). Belief may appear to be a simple logical feature of knowledge; this may explain why many traditional epistemologists (those who study theories of knowledge) have not explored belief as a complex psychological state, instead, they have treated belief as a monolithic state that can take a multitude of propositions as objects (Moser et al., 1998).

Henderikus (2007) refers to knowledge as accumulated truth. This implies that for a researcher to arrive at some knowledge, there must be substantial volume or frequency of data that convey common information on the phenomenon under study. Hence, this is where quantitative data collection and analysis methods find much application. On this note, two sources or methods of obtaining knowledge are empirical and rational deductions (Henderikus, 2007). The empirical method best suits physical knowledge obtained through the senses while rational methods suits metaphysical knowledge. Thus, it is imperative for the researcher to understand the kind of knowledge that should be captured in a study so as to develop the right methodology.

#### **4.1.4.3 Truth**

The truth at work in Justifiable True belief (JTB) is certainly corresponding. In addition to the confessions of the authors on this, just to be convinced to carefully observe the example of the sheep-dog given by (Gettier, 1963). This arises in three stages: (1) seen in a field, which has the hair of a sheep. He concludes that there is a sheep in the field. (2) However, this is not a sheep but a sheep disguised dog (one then thinks for a moment: So, his deduction is false). (3) But the presence of another sheep in the field, hidden from his eyes, makes true despite his assertion that there is a sheep in the field. The problem of truth is here in (2), implicitly and by default (false); and (3) an explicit and positive manner (the truth). And the design of truth that is assumed

is whenever corresponding: in (2), if one can deduce that there is falsity because a judgment issued does not correspond to reality, it is the truth, conceived as correspondence between subjective judgment and an objective fact. And (3) if we can finally declare the judgment 'real', it is only because the presence of a real sheep has been demonstrated; so this is the truth of judgment entirely dependent on the actual presence (real) of its object.

Howell (2013) sees truth as a difficult concept to pin down, one that may be interpreted as a reflection of reality based on ontological (the nature of reality) and epistemological evidence. Again, truth, like theory, is not eternal; it is subject to change. It is beyond ordinary perceptual beliefs.

#### **4.1.5 Subjectivity and Objectivity**

These phenomena are used in the explanation of research observations. Research findings are deduced from observed results, which can be regarded as theory. Theory can be subjective or objective. Objectivism is about certainty, something that is certain, while subjectivism is about an individuals' thinking that influences their perspective of an idea. An objective theory is a theory that exists and cannot be changed, while subjective theory, on the other hand, is a theory that can be manipulated depending on an individual's preferences and explanation of the theory (Fine, 2006). Based on these facts, it can be argued that objective theory falls with ontological concepts of the participatory paradigm of inquiry, while subjective theory falls within the epistemological dimension of the participatory paradigm of inquiry. The construction of the object in a codified model happens, firstly, through the development of hypotheses, then verification of procedure, and finally through rectification of assumptions. The object of the construction phases was here reversed: The search field is the start of a problem, and this is not the verification of a predetermined problem.

#### **4.1.6 Phenomenology**

According to Howell (2013), "Phenomenology provides us with interpretations regarding the distinctions between the internal and external world as well as levels of objectivity and subjectivity" (p .53). It is generally understood that there is a relationship between the mind and the world. George Wilhelm Friedrich Hegel (1770-



1831) argued that phenomenology dealt with the way things seemed for consciousness or with forms of consciousness.

Phenomenology now occupies an increasingly important place in the field of psychotherapy (Howell, 2013). This way of thinking often requires on the part of those who adhere to have a true "conversion", in the words of Edmund Husserl, (1859-1938), its main initiator. Husserl found inspiration in the works of several philosophers and scientists, among them Fichte, Hegel, and Brentano. Subsequently, other authors, such as Heidegger, Merleau-Ponty, Levinas, and Ricoeur, developed their own conception of phenomenology while meeting most of its fundamental principles. But it is really Husserl that deserves credit for trying to build a descriptive science of the phenomena that exist with regard to humans and thus to break with the ambient ideas of his time. The aims were very ambitious, namely giving birth to a science of psychology understood as the experience and developing a transcendental phenomenology, a unitary philosophy of science. He was unable to achieve this ambition, but his work has transformed the current conceptions regarding humankind's relationship to the world.

#### **4.1.7 Methodologies in relation to paradigms of inquiry**

Paradigms of inquiry identify different interpretations both in terms of theory and methodology (Howell, 2004). It allows a distinct study of theory that provides set of immutable laws, which enables prediction (Howell, 2004). It defines for those pursuing answers to questions, what is within the boundary of permissible enquiry and what is beyond it. (Guba & Lincoln, 1994). The considerations regarding the nature of reality and the role of theory in the pursuit of knowledge will have implications for the methodology pursued in a research project (Howell, 2013).

Methodology in relation to paradigms of inquiry is linked at the ontological, epistemological, positivist, and phenomenological levels (critical theory and constructivism). The knowledge that positivist ontology involved the belief that external reality existed, which through precise procedures could be discovered and comprehended, is an approach sometimes labeled naive realism (Denzin & Lincoln, 1994, 2000).

According to Howell (2013), a general perspective of critical theory ontology involves an understanding that reality is shaped through social and historical processes and may be defined as *historical realism*. The epistemological aspect of the critical theory paradigm considers that findings and theoretical perspectives are discovered because the investigator and investigated are intrinsically linked through historical values which must influence the inquiry. This leads towards a specific methodology, which identifies a dialogic and dialectical approach. Dialogue is needed between the researcher and the researched and between the past and present. Methodology at the level of epistemology, according to positivists, involved the belief that truth could be found or reality fully understood if the investigator and the external world (or what could be discovered) were completely separated and objectivity sought through scientific procedure (Howell, 2004). Methodologically, this could be achieved by attempting to prove hypotheses through scientific experiments and the manipulation of confounding conditions (Howell, 2004).

**Table 4.1 Paradigm of Inquiry**

Item	Positivism	Post-positivism	Critical Theory	Constructivist and Participatory
<b>Ontology:</b>  The form of reality.  What can be known about reality?	Reality can be totally understood.  Reality exists and it can be discovered.	Reality may only be understood imperfectly and probabilistically. Reality exists but humanity unable to totally understand it.	Reality shaped by history.  Formed by values that are crystalised over time.	Reality is locally constructed. Based on experience although shared by many.  Dependent on person/group changeable;  <b>Participatory:</b> co-created through mind and world.
	(Naïve Realism)	(Critical realism)	(Historical Realism)  Breakdown of a clear distinction between ontology and epistemology	(Relative Realism)  Breakdown of a clear distinction between ontology and epistemology
<b>Epistemology:</b>  How does the investigator go about finding out what he/she believes can be discovered?	The investigator and investigation are totally separate. Values are overcome through scientific procedure. Truth is a possibility.	Abandonment of total separation of the investigator and investigation. Objectivity still pursued.	The investigator and the investigated linked. Accepted that historical values influence the inquiry.  Result subjective	As critical theory, however, the findings are created as the investigation proceeds.  <b>Participatory:</b> paradigm findings are developed between the researcher and cosmos.

<b>Methodology:</b>  How does the investigator go about finding out what he/she believes can be discovered?	Scientific experience based on hypothesis; these are usually quantitative. Conditions that confound are manipulated.	Multiple modified scientific experiment. Pursues falsification of hypothesis; may include qualitative methods.	Needs dialogue between investigator and the subject of investigation. Structures may be changeable. Actions effect change.	Creates a consensus through individual constructions including the constructions of the investigator.  <b>Participatory:</b> Similar methodologies can be employed (primary action research).

**Table 4. 2 Paradigm of Inquiry for the reseach**

Items	Critical theory
<p><b>Ontology:</b></p> <p>Basic facts of realism, which is objective. Communication is basically the passing of messages from one person to other.</p>	<p>The relative history of communication will serve as a platform for change and inventions. The forms are both reality/objective and subjective. Communications pattern, structure, and form here have undergone tremendous transformation, changes, and growth over the years, keeping the reality of communication, which is objective and transformed into greater efficiency and use/subjective.</p>
<p><b>Epistemology:</b></p> <p>There is a relationship between the investigator and research. Personal aims, objectives and goals for the research. As part of interest, the reseacher will make valuable contributions and recommendations to appropriate authorities on how to improve or where to channel development goals.</p>	<p>Personal beliefs/values determine what the facts are. There is this acceptance that historical values influence the inquiry. Immutable laws, values, and nuances are considered here. Tracing the history of communications from the traditional age of pigeon or town crier through the newspaper age to the telex and supercomputers, Internet, and mobile communications. Much of the past has influenced the stage humans are in communication development and progress in corporate growth and societal development.</p>

<p><b>Methodology &amp; Methods</b></p> <p><b>Method</b></p> <p>Though the research could be considered as triangulation, because of the survey, the empirical research will mainly be qualitative. The primary data collection will be based on structured and semi-structured questionnaires (Likert scale) targeted at heads of corporate institutions, government officials, stakeholders, and the general public (essentially all stakeholders, internal and external, of communication industries).</p> <p>Questionnaires, interviews, focus groups, and documentary materials will be used. Interviews and focus groups will enable the researcher to look closely at people's words, actions, and body language.</p>	<p><b>Hermeneutics:</b></p> <p>This is a methodology that initially dealt with ancient scriptures but essentially paid attention to historical/social context interpretation. It will help in the interpretation of communication patterns in proper social, historical and cultural context.</p> <p><b>Ethnography:</b></p> <p>Ethnography means the “study of people.” <i>Ethnos</i> is a Greek term for people, and <i>graphic</i> involves making something clear and/ or study of certain phenomena (Howell, 2013). The ethnographic approach in research involves pursuing shared understanding and meaning of the lifeworld (the daily existence) of societies and groupings through research undertaken over long periods of time.</p> <p>Ethnography will thus reveal the impacts of communication on culture in some parts of Nigeria and indeed, factors that hinder adaptation of culture to optimal communication services.</p>
--	--

#### 4.1.8 Critical Theory

Critical theory is a paradigm developed by the Frankfurt School movement of thought. It is influenced by divergent intellectual ideas, including Marxism and psychoanalysis. It starts from two principles: opposition to the status quo and the idea that history can be potentially progressive. It reflects historical process and the ideas that represent phenomena. They develop in relation to historical change and incorporate ethical changes to the existing state of affairs.

According to Howell (2013), there are close linkages between theoretical development and ethical reflection. Thus, Habermas (1989) related social science to human interaction based on ethical considerations. Ontologically, reality shaped

through historical process; just as values of individual and history influence results epistemologically (Habermas, 1989).

Critical theory was first defined by Max Horkimer in 1937. He defined critical theory as a social theory geared towards criticising and changing society as a whole. It arose as a result of criticism against technical educational research that failed to address social inequalities. Critical theory examines social conditions to enable the discovery of hidden structures and serve to bring changes that change peoples' lives (Lindlof & Taylor, 2002). The core concepts of critical theory consider that research should be directed at society and that it should improve societal understanding through the integration of social sciences. Critical theorists suggest that researchers should look at political and economic foundations of knowledge construction, teaching, and curriculum. The aim of critical theory is to understand community behaviour and try to change those behaviours. It encompasses ideologies like postmodernism, feminism, and neo-Marxism. The assumptions of critical theory are based on the premise that social reality is defined from individuals in the society and that social behaviour is shaped by illegitimate, dominating, and repressive factors. It also assumed that knowledge is constructed by society, media, and institutions (Chen, 2000). For a critical theory to be considered adequate, it has to be explanatory, practical, and normative (Horkimer, 1993).

Critical theory is not speculative because it is derived directly from empirical observations and thus always substantive (Charmaz, K. 2006). Critical theory is meant to challenge grandiose armchair theorising by developing a more effective means of generating theory. The main message was that generating theory "discovered" through data could be more relevant and productive because it will at least fit the immediate problems being investigated as well as serve to open up potential fruitful lines of inquiry. This will thus enable the research to build on formal models in communication and development respectively. With strong reliability on data collection and analysis in relation to pre-existing theory and practice, new grounds on theory will be built in communication.

#### **4.1.8.1 Critical Theory: Habermas**

Jürgen Habermas is a German sociologist and philosopher of the critical theory and pragmatism background. He is possibly the best known for his theories on communicative rationality and the public sphere. Global polls consistently find that Habermas is widely recognised as one of the world's leading intellectuals (Kutchinsky S., 2014). He is a monumental reference in the social sciences sector since the release of his Theory of Communicative Action, published in Germany in 1981 and published in France in 1987. At the time of this impressive sum, "the philosopher of Frankfurt" sees the conscious language activity as the road to construct a world in which all conflicts can be solved peacefully and all questions asked by humanity be resolved through debate.

Habermas was sharply critical of the world as it is, but not for its foundations, more for its excesses. Habermas argues at the right time that the world we are building, through the linguistic interaction rather demonstrates our commitment agreement. So these are pathologies of communication that explain that we are not respected as should be, the case resulting into an "ethics of discussion". We talked to irenicism about this theory; it was also asked whether the Habermasian model of the ideal exchange was not that of the university community - reflecting accessibility misunderstanding of the reality of this environment. But almost unanimously, the paradigm of communicative action was considered credible successor of a "production paradigm", carried by the Marxist theory.

## **4.2. Methodology**

Section 4.1 discussed the research paradigms of inquiry relevant to the data collection for this study. This section introduces the specific methods and methodology that was used for the collection and analysis of the research findings.

Research methodology is an overall approach or strategy to the research process (Collins & Hussey, 2003). and should reflect the ontology and epistemological premises of the research (Schensul, 2008). Moreover, research methodology affects the choice of research methods or the techniques utilised for data collection (Schensul, 2008).



Because hermeneutics and ethnography were chosen as the research methodologies for this thesis, this section will discuss the philosophical underpinnings of these two methods. It will also identify the related ontological and epistemological assumptions of the research methods..

#### **4.2.1.Hermeneutics**

Hermeneutics is derived from the idea that Hermes (the messenger of the Greek gods) could interpret and explain their wishes: In this context, hermeneutics can clarify issues under analysis (Howell, 2013). However, Hermes also conveyed falsehoods and represents the misleading as well as the clarifying relationship between humanity and phenomena of the world (Howell, 2013). Hermeneutics, according to Follesdal (1979), is the study of interpretation. The problems of interpretation become particularly acute when one is dealing with texts, the correct interpretation of which is a matter of some importance, and which were written at a time or in a situation that is very different from those of the interpreter (Follesdal, 1979). Legal and religious texts are notable instances. Thus, law and theology were the areas where hermeneutics was first systematically studied. In these two fields, interpretation was considered and debated throughout antiquity, into the Middle Age and modern times (Follesdal, 1979).

This attitude contrasts with theorists such as Giddens (2008) or Habermas (1984) who found in hermeneutics strong support for exploring the logic of a possible post-positivist social science. The problem of interpretation in sociology is primarily the responsibility of epistemology and methodology. Implications drawn from the fact that we are, according to Taylor specific type of animal that can interpret itself or the fact that the social sciences have to deal with individual and collective beings, who build and maintain their identity through self-interpretation in a particular language (Taylor, 2002). The language becomes a vehicle for interpretation, and it implicitly raises the question of the place and the role of language in sociology.

Hermeneutics necessitates dialogue with the text, which should not be revered but

approached as an equal entity: Individual researchers should listen to what the text has to say while at the same time interrogate it. Each of these techniques enables interaction with the text and enables the act of interpretation and discovery of meaning (Howell, 2012). There are three types of hermeneutics:

1. Objective hermeneutics: A clear distinction exists between objective and subjective; a stance exists.
2. Alethic hermeneutics: Objectivity and subjectivity are always subsumed; researchers are historically and culturally bound, so an objective stance is impossible. Understanding is predetermined by historical and cultural pre-conditioning.
3. Phenomenological hermeneutics; the researcher continually exists in the world and rejects the notions of subjective and objective positions. Worlds and individuals are merged before any reflection, thinking or construction. This type of hermeneutics was the methodology used in this study.

Hermeneutics is, therefore, a methodology that initially dealt with ancient scriptures but essentially paid attention to historical/social context interpretation; it helps in the interpretation of communication patterns in proper social, historical, and cultural context. The thesis of a methodological dualism is a natural science and the human sciences discussed by the philosophy of science and German sociology. In the knowledge of the spirit world, we can appeal to the understanding because, by introspection, we can design the meaning of human actions. To reach this understanding, Dilthey proposed a hermeneutical approach, which is used to study the different procedures for sociology. The purpose of this reconstructive social science is not to validate assumptions by laws, relating to events or observable behaviours but to systematically reconstruct the intuitive knowledge of relevant social topics, practical mastery of a set of games, language, and culture and the specific roles they are playing.

Sociology can follow the model of empirical-analytical sciences or historical-hermeneutic sciences. However, in both cases, sociology did not develop an optimal heuristic value since it is not the means of optimal critical dimension. Habermas criticised the conservatism of previous hermeneutists because their focus on tradition seemed to weaken possibilities for social criticism and transformation. He also criticised Marxism and preceding members of the Frankfurt School for missing the

hermeneutical dimension of critical theory. Habermas incorporated the notion of the lifeworld and emphasised the value for social theory of interaction, communication, labour, and production. He saw hermeneutics as a dimension of critical social theory.

#### **4.2.1.1 Phenomenological Hermeneutics**

Diverse debates in philosophy, science, and politics, involving different schools of thought on reason, knowledge, scientific method, and experience formed the central discourse in the last three decades. Each of these debates, however, had a distinct set of concerns, whose very nature was part of the debate that asked for responses and inquired beyond conventional understanding of the central difficulties under consideration.

The phenomenological hermeneutics upon which the research is based is itself based on the work of Gadamer and Ricoeur and inspired or underpinned by Husserl, Heidegger, and Merleau-Ponty (Howell, 2013). The differences ranged from Husserl's reliance on transcendental phenomenology, Heidegger's hermeneutical or *Dasein* and being-in-the-world, and Merleau-Ponty's world of "inalienable presence."

Transcendental phenomenology is the primary mode of phenomenological philosophy as imagined by Husserl and concentrates on nematic (object-content of thought) aspects of consciousness or what is believed or desired rather than the act of knowledge. Phenomenological Hermeneutics, therefore, focuses on the lifeworld and meaning what may be considered as trivial elements of human existence.

Hermeneutic phenomenology centred on the specific expertise of individuals and groups. It is an effort to unveil the world as encountered by the plan through life world stories. This school of thought believes that interpretations are all that exist and description itself is an interpretive rule. To make the best understanding of a phenomenon, it recommends the use of the hermeneutic cycle (Kafle, 2011).

Husserlian phenomenology is built around the idea of reduction, which refers to suspending the personal prejudices and attempting to reach to the core or essence through a state of pure consciousness. Therefore, transcendental phenomenology advocates for applying the phenomenological attitude over natural attitude. The basic interest of this school of phenomenology is to discover and describe the "lived world." According to Howell, (2013), "...Husserl...argued that phenomenology

necessitated consciousness experienced from personal perspectives and practiced whenever we consider what we heard, see or felt”( p.56). According to Kafle, (2011), “the research pattern based on this school of thought believes that it is possible to suspend personal opinion; it is possible to arrive to a single, essential, and descriptive presentation of a phenomenon, quite similar to that of the positivist tradition” (p.186) The proponents of this area of phenomenology believe that if there is more than one reality, it leaves doubt and clarity. However, there are discussions on how to exercise reduction. Bracketing and epoch are the terminologies that are allied with this process but beliefs on integration of personal opinion during description differ from scholar to scholar (Kafle, (2011).

A clear divergence can be recognised in the approach of hermeneutic phenomenology. It begins with the writings of Heidegger, who was a disciple of Husserl. This departure is principally because of the denial of the notion of suspending personal views and the turn for the interpretive narration to the description. Based on the assumption that reduction is impossible and on the acceptance of endless interpretations, this school of phenomenology puts an effort to find the subjective experience and the genuine objective nature of the things as realised by an individual. Hermeneutic phenomenology is focused on the subjective experience of individuals and groups. It is an effort to unveil the world as experienced by the subject through their life world stories. This school believes that interpretations are all we have and description itself is an interpretive process. To generate the best interpretation of a phenomenon, it proposes to use the hermeneutic cycle (Kafle, 2011).

The publication of Heidegger’s *History of Concept of Time* (1925) and *Being and Time* (1927) provided the foundation for this school of thought. Later it was enriched by scholars such as Gadamer, Ricoeur, and van Manen.

According to Cohen (2001), hermeneutic phenomenology is concerned with understanding texts. In this approach, the researcher aims to create a rich and deep account of a phenomenon through intuition, while focusing on revealing rather than accuracy, and amplification with the restraint of prior knowledge. In using this approach, researchers affirm the difficulty of bracketing. To overcome this difficulty, they acknowledge the implicit assumptions and attempt to make them explicit. Also,

they accept the notion that there may be many possible perspectives on a phenomenon. Hermeneutic phenomenology avoids method for method's sake and does not have a step-by-step method or analytic requirements. The single guidelines are the recommendation for a compelling interplay among six research activities: commitment to an enduring concern, oriented stance toward the question, examination of the experience as it is lived, explanation of the phenomenon through writing and rewriting, and study of parts and whole. Hermeneutic phenomenology is involved with the lifeworld or human experience as it is lived. The centre is toward illuminating details and seemingly trivial aspects of knowledge that may be taken for granted in human lives, in addition to the goal of generating meaning and achieving a sense of understanding (Wilson & Hutchinson, 1991). Hermeneutic phenomenology is mindful of the philosophies underpinning both hermeneutics and phenomenology (Van Manen, 1990). It is a “research methodology aimed at producing rich textual descriptions of the experiencing of selected phenomena in the life world of individuals that can connect with the experience of all of us collectively” (Smith, 1997, p. 80).

From classification of the experience of phenomena, a deeper understanding of the meaning of that experience is sought (Smith, 1997). This happens through increasingly deeper and layered reflection by the use of rich descriptive language.

#### **4.2.1.2 Hermeneutics in relation to critical theory**

In general perspective, critical theory ontology involves an understanding that reality is shaped through social and historical processes and may be defined as “historical realism.” The epistemological aspect of the critical theory paradigm considers that findings and theoretical perspectives are discovered because the investigator and the investigated are intrinsically linked, through historical values, which must influence the inquiry. This leads toward a specific methodology, which identifies a dialogic and dialectical approach. Dialogue is needed between the researcher and the researched and between the past and the present. In this context, theory is changeable in relation to historical circumstances. In addition, theory is developed by human beings historical and cultural circumstances as interaction between researcher and researched and historical values influence the analysis. In the words of Ricoeur, “Understanding is thus no longer a mode of knowledge but a mode of being, which exists through understanding” (Ricoeur, 2004: 7).

According to Habermas (2004), social sciences have not only an empirical- analytical dimension but also a hermeneutic reasoning that centres around the practical interest of mutual understanding and an emancipatory dimension that construes freedom from unnecessary constraints as the goal of critique. Howell (2013) states that “Critical theory illuminates the very basis and ‘truth content’ of liberal ideals such as freedom, truth and justice and he used them in its pursuit of an improved existence for humanity” (p.83).

In introducing his critical theory, Habermas (2004) identified the need for a fundamental paradigm shift. Understandings of theory need to be moved from intellectual situations in which the end justified the means to one where communicative rationality took centre stage. Post-positivist pursuits of objectivity that ignored the worldviews, values, and norms through which the world is structured failed to fully comprehend social phenomenon.

“Habermas was able to draw on the developments in the phenomenological, ethno-methodological and linguistic traditions and thus...anticipate the decline of positivism and rise of interpretivism” (McCarthy, 1999, p.400 cited in Howell, 2013, p. 84). However, he argued that it would not be helpful to reduce social research to the interpretation of meaning because such meaning may conceal or distort as well reveal and express human conditions (Howell, 2013).

#### **4.2.2 Ethnography**

Ethnography means the “study of people;” *ethnos* is a Greek term for people and *graphic* a term that involves making something clear and/or the study of certain phenomena (Howell, 2013). It tends to comprehend values and norms (culture) of one group or society through the norms and values of another cultural perspective (Howell, 2013).

Methodologically, ethnography centres on the manner in which people communicate and collaborate in observable and regular ways (Gill and Johnson, 2010). The methodology “provides insights on a group of people and offers us an opportunity to see and understand their world” (Boyle, 1994, p.183) as the researcher immerses in a social setting for an extensive period, observing behaviour, listening to discourses, both between the participants and with the fieldworker, and asking questions.

Although direct observation would aid understanding and interpretation and construction of the phenomenon under study, it would be difficult to accomplish these essential requirements, especially given that the context of this study is based on the communication industry. The main disadvantage of the ethnographic methodology is its inclusiveness (Fisher, 2007) as well as its emphasis on full participation during data collection. In such a situation, a researcher must cope with being a full-time member of a work group as well as doing the research (Collis & Hussey, 2009).

#### **4.2.2.1 Ethnography in relation to Paradigm of inquiry**

Overall, the ethnographic approach in research involves pursuing shared understanding and meaning of the lifeworld (the daily existence) of societies and groupings through research undertaken over long periods of time (Collis & Hussey, 2009). It focuses on developing a complex, complete description of the culture of a group, a culture-sharing group. It may be of the entire group or a subset of a group (Creswell, 2013).

According to Kuper and Kuper, (1985), ethnography is a term that carries several historically situated meanings. In its most general sense, it refers to a study of the way of life and ideas that a given group of people more or less share. It has implications for both the method and study and result of study. When used as a study, it typically refers to fieldwork (alternatively, participant observation) conducted by a single investigator who lives a life like those who are being studied, usually for a year or more.

Ethnographies are always informed by this concept, as ethnographers aim to look beyond what people say to understand the shared system of meanings called “culture.” In her review of ethnography in consumer research, Pettigrew (2000) argues that consumption represents a phenomenon that can be effectively addressed. The use of ethnographic techniques is based on the understanding that the social meanings discovered in material possessions can be viewed as cultural communicators. Arnould (1998, p. 86) provides an in-depth discussion of consumer-oriented ethnography suggesting that “ethnography attempts to explicate structured patterns of action that are cultural and/or social rather than merely cognitive, behavioural or affective” (p. 86). Stebbins (1997) further illustrates the potential of ethnographic research to the study of lifestyles, given the cultural or sub-cultural

context within which they are enacted. Ethnography, therefore, has its own distinct procedures for collecting data, but it is also highly concerned with the cultural context.

The research in this study used critical ethnography in both the data collection and analysis, considering that critical ethnographers draw on a social science mode of research related to critical theory and do not simply report analysis; they engage with analysis and include ethical considerations regarding the way people are represented (Hall, 1997) . According to Howell (2013), critical ethnography focuses on the quality/quantity of data and data collection as well as the interpretation of the data through non-established modes of thinking; it involves innovative methods of data collection and creative analysis. For instance, discourse should not be perceived as inane but in terms of power relations and the relationship between the researcher and researched and the researched environment critically assessed with regard to power relations and responsibilities. Furthermore, the effect that the researcher has on the data and research process should be critically observed and the utilisation, reporting, and validity of research closely investigated.

The researcher believes that social theories exist and should be used to direct the investigation while at the same time approaching the field with an open critical mind. The main emphasis is that it should be the reflective analysis of numerous and comprehensive observations. To that end, according to Howell (2013), “Triangulation is...an important element for critical ethnographic studies and a combination of qualitative and quantitative methods of data collection should not be discouraged” (p.125). Furthermore, ethnographic methods can include “non- participatory observation, participatory observation, analysis of cultural and social artefacts, diaries and personal documents, life histories, key in-depth interviews, focus groups, discourse and language”(Howell, 2013. p.125).



### 4.3 Methods

Research methods can be said to be understood as all those methods/techniques that are employed for conduction of research. Research methods or techniques, therefore, refer to the methods the researchers adopted in the process of the investigation (Kothari, 2004).

At the same time, contrast also is made between research techniques and research methods. Research techniques point to the behaviour and instruments used in conducting research processes, such as conducting observations and recording and processing data. Research methods refer overall to the behaviour and instruments used in choosing and constructing the design of the research itself. For instance, the distinction between methods and techniques of data gathering can better be explained from the details given in the following chart.

**Table 4.3 The distinction between methods and techniques**

Type	Methods	Techniques
1. Library	(i) Analysis of historical research records (ii) Analysis of documents	Recording of notes, content analysis, Tapes and Film listening and analysis. Statistical compilations and manipulations, reference and abstract guides, contents and analysis.
2. Field Research	(i) Non-Participant direct observation (ii) Participants Observation (iii) Mass Observation (iv) Mail questionnaire (v) Opinionnaire (vi) Personal View (vii) Focused interview (viii) Group interview (ix) Telephone survey	-Observational behavioural scales, use of score cards, etc.  -Interactional recording, possible use of tape recorder, photographic techniques. -Recording mass behavior, interview using independent observers in public places.  - Identification of social and economic background of respondents.  - Use of attitude scales, projective techniques, use of sociometrics scales -Interviewer uses a detailed schedule with open and close questions.  -Interviews focuses attention upon a given experience and its effects.  -Small group of respondent are interviewed simultaneously.  -Used as a survey technique for information and for discerning

	(x) Case study and life history	opinion: may also be used as a follow up of questionnaire.  -Cross sectional collection of data for intensive analysis, longitudinal collection of data of intensive character.
Laboratory Research	Small group study of random behaviour, play and role analysis	Use of audio-visual recording devices, use of observers etc.

From the above table, we can summarily say that methods are more general. It is the method that dictates the technique. The two terms are often used interchangeably. When we talk about method, by implication we refer to technique (Kothari, 2014.p.7).

#### **4.3.1 Survey or questionnaires**

“Surveys can be used for positivist, post positivism and phenomenological studies” (Howell 2013.195). Therefore a survey was relevant in the research, as it allowed for quantitative data collection and served to bring a holistic quality to the research, which was conducted mainly through qualitative techniques. The researcher contacted individuals by letter and asked them to complete and return a questionnaire. This was designed to reach a wide audience. This form of primary data collection was based on a Likert scale and targeted at heads of corporate institutions, government officials, stakeholders, and the general public (i.e., essentially all stakeholders, internal and external, of corporate communications). It provided access to stakeholders and key practitioners in the communication industries.

#### **4.3.2 Interviews**

Interviews are a method of data collection in which selected interviewees are asked questions through verbal or visual means, to find out what they do, think or feel (Collis & Hussey, 2009). In other words, it is a technique that provides qualitative researchers access to the meanings people attribute to their experiences and social worlds. According to Easterby-Smith et al. (1991), “The most fundamental of all qualitative methods is in-depth interviewing,” and at its heart is the aim “of understanding the experiences of other people and the meaning they make of those experiences” (Seiman, 1991, p.3). Data collection through interviews is advantageous because the researcher can get specific issues addressed by probing the respondents with questions based on their previous responses (Howell, 2013). The interview

questions were structured and semi structured. At the structured level, it allowed for standardised interview to reduce the effect of the interviewer's biases. The approach does constrain the interview access to materials that may be useful. At the level of semi-structure, questions are fixed but may be adapted as the interview progresses (Howell, 2013). This indeed allowed some flexibility in the outcomes. Interviews, especially with less structured forms, are effective for uncovering nuances because they are flexible and interactive and allow for continuity (Rubin & Rubin, 1995). Moreover, this is a method that facilitates access to individuals' attitudes and values that are rarely observed (Bryman & Bell, 2007).

As Kvale (1996) stated, "A qualitative research interview is aimed at capturing nuanced description from multiple qualitative aspects of the interviewee's lifeworld" (p. 32). Also, for Schein (1984), interviews are best used for an interactive and joint exploration because an insider's experience of a phenomenon will be subjectively distinct from that of an outsider. In management research, particularly when delving into communication and governance issues, utilising an interview approach, allows the investigator, as an outsider, to contrast his/her beliefs with those of the participants, and thereby gain a deeper understanding of the phenomenon. Moreover, the general belief, in using interviews as a data collection method, is that the views of multiple participants can help the researcher to capture the full complexity of the phenomena being studied. Macey and O'Hara (2003), arguing for a broader set of governance mechanisms for banks at different stages of development, suggest that a subjective approach is needed and could only be conducted through direct interviews, as the interview process affords the researcher first-hand information on why certain events have occurred, enabling him/her to answer the research questions.

According to Bloch (1996), "In social research the language of conversation, including that of the interview, remains one of the most important tools of social research analysis, a means whereby insight is gained into everyday life, as well as the social and cultural dimensions of our own and other societies." (Bloch 1996 p. 323).

#### **4.3.3 Focus groups**

Focus group discussion was employed in the findings so as to reach a wider set of stakeholders and consumers of communication services. As a data collection

technique, the focus group method was developed in the 1920s and has been used in social science research ever since (Frey and Fontana, 1993). It has brought about an increase in non-directive interviewing using open-ended questions in recent times. Indeed, the technique has now been applied in researching social problems across several disciplines, particularly in exploratory research projects that aim to understand a social context that is unfamiliar or new (Frey and Fontana, 1993). A focus group has been described as “a carefully planned discussion designed to obtain perceptions on a defined area of interest in a permissive, non-threatening environment” (Krueger, 1994, p.6), where participants share and respond to comments, ideas, and perceptions.

At a methodological level, Morgan (1996) observes focus groups as “a research technique that collects data through group interactions on a topic determined by the researcher” (p. 130). Through this process, participants present their views and experiences but they also have the opportunity to hear what other people have to say. This can generate varied responses as the discussion progresses, which can give the researchers new ideas, confirm data collected from interviews, or clarify events or the frame of reference for the subject under study. Blumer (1969) recommends bringing together several knowledgeable people, familiar with the social situation under investigation, into a discussion group. He argues that this group would be “more valuable many times over than any representative sample” (p.41). In other words, the use of a focus group provides another side of reality, as it encourage interaction among the respondents and allows participants to change their opinions and experiences (Krueger, 1998). More importantly, focus groups “present a more natural environment than that of the individual interview because participants are influencing and influenced by others - just as they are in real life” (Casey & Krueger, 2000, p.11).

Focus group use enabled the researcher to look closely at people's words and actions. As pointed out by Howell (2013), it is suitable to explore individual experiences, opinions and concerns, as respondent can formulate and pose their questions and pursue issues they considered paramount. Sample selection was a combination of ICT stakeholders (managers of ICT products and services) and professionals and users of communication services (consumers of ICT products and services). It enabled the gathering of individual opinions and life stories. It also allowed the researcher to

better handle the issues regarding the “self/others” divide in the research process (Howell, 2013).

#### **4.3.4 Documentary Materials**

Although the primary sources of data were the interviews and focus group discussion, documentary data (both the reviewed literature and other sources) were used to identify essential themes. At the fieldwork stage, the initial documents looked at relevant theoretical literature on communication in Nigeria both in the public and the private sectors. The study of global, sub-Saharan African, and most specifically Nigerian communication was germane to the study. These formed what Dey (1993) calls “accumulated knowledge” (p.66) and provided what has been termed literature sensitivity (Strauss and Corbin, 1998).

In this research, there were two main reasons for examining documentary materials that were either collected from the ICT industries directly or through their websites. The first was to comprehend the ways in which the actors were affected by or had changed the information contained in the documents. The second was to understand the nature of the influence these documents have on governance. It has been argued that the use of documents increases the comprehensiveness and validity of any investigation (Patton, 2002). As Atkinson and Coffey (2011) and Prior (2011) claim, documentary texts speak in the absence of speakers and, more importantly, remain uniform across separate and diverse local settings.

#### **4.4. Summary**

In all, it is aptly clear that the methodological and philosophical positions of a research project determine the mode of its data collection and analysis. Therefore, it is obvious that the methodologies and paradigms of inquiry in the research project, showing the relationship between ontology and epistemology, could be a hallmark in the realisation of the impacts of communication in the social economic development of Nigeria. The thesis qualitative & quantitative (Triangulation) research design was chosen in the attempt to fill the obvious gap identified in the literature review in the area of impacts of communication in the socio-economic development of Nigeria and

could, therefore, identify the associated problems with the industry while proffering solutions to overcome the challenges. The progress of the research and the emerging nature of the communication and governance phenomenon in Nigeria under investigation influenced the choice of the research design. The chapter also described the main paradigms of inquiry with qualitative research, such as positivist, post-positivist, and critical theory (Lincoln and Guba, 2000), as well as hermeneutics, one of the methodologies of the research.

In addition, the chapter discussed qualitative research strategies and, given the assumptions of the design, argued that the qualitative strategy best fits for the findings. The chapter dealt with research methods such as questionnaires, interviews, focus groups and documentary evidence as beneficial tools for generating substantive model from inductively derived data. Historical and philosophical accounts of hermeneutics and ethnography also were provided and justified as the research methodologies. The aim was to highlight their importance in the investigation of the issues surrounding communication in governance, especially the impacts on infrastructural development, which are significant to developing countries such as Nigeria. Discussions concerning the data collection, theoretical sampling, and coding will be provided in the next chapter.

## **CHAPTER FIVE: THEORETICAL MODELS OF ICT, WORKING DEFINITIONS, AND THEORETICAL FRAMEWORK**

### **5.1 Introduction**

The relevant empirical and theoretical studies reviewed in Chapters 2 and 3 show a significant impact of communication, particularly ICT and related developments, in every facet of today's world. In the last chapter, the methodology and the various research methods to be used in the study will use for the process of gathering data were also examined. The aim of this chapter, therefore, is to develop a basic theoretical framework and preliminary model that will guide the analysis of the empirical data. The interpretation of the data collected will form part of the model of the "simplified perspectives of the phenomenon" (Howell, 2013, p. 27) for the research findings. The next chapter will dwell on the hermeneutic dialectical analysis of the evolution of ICT and the semi-structured interviews and focus group analysis of the data collected.

Models of ICT usage in various sectors, which are included in this chapter, demonstrate how ICT can or does facilitate work in various sectors.

### **5.2 Key Definitions**

**Communication-** The term Communication refers to the act of imparting and exchanging information resources, through the use of various physical and non-physical mediums. The phenomena of communication, has been viewed as a fundamental characteristic of the contemporary time. The term communication, can be used to refer to the varied range of electronic systems used for the purpose of ensuring faster access to information (Soanes and Stevenson, 2009).

**ICT-** The term ICT is the abbreviated form for Internet and Communication Technology, and is used to refer to technologies that help broaden the access to information. This includes communication technologies such as those provided by the internet, wireless networks, cell phones and other communication networks, that have significantly reduced the time interval required for the transmission of information ("ICT", 2010).

**Government-** The Oxford Dictionary of English language defines the term Government as being used to refer collectively to the individuals responsible for overseeing the organisation, and establishing control and regulation in a state, region or a country (Soanes and Stevenson, 2009).

**Governance-** The term Governance is used to refer cumulatively to the methods, processes and the institutions that have been established in order to ensure efficient regulation, implementation, transparency in the maintenance of law and order in a region or organisation. Effectual Governance is needed to ensure that the norms, and regulatory processes implemented, remain lucid, participatory and all encompassing ( “Concept of Governance”,n.d.).

### **5.3 Theoretical Model**

A theoretical model is an attempt to explain a system or process, on the basis of an existing theory or group of relevant theories. The proposed model could be in the form of a diagram based on the interpretation of the narratives. It is meant to explain different factors that contribute to or explain a given phenomenon and how these factors are interconnected. It is important to stress that a model should be constructed based on the emergence of the central explanatory category of the phenomenon, as generated from the data. Although this thesis is concerned with developing a model in communication, such findings can also be linked to a formal theory or model to give a more explanatory power across a range of situations (Goulding, 2002).

#### **5.3.1 ICT Political Model**

Developments in ICTs are transforming the political dynamics of nations across the world. Singh and others suggest that ICTs possess a transformative power that leads to profound changes in the identity of actors and issues in global politics (Singh 2013).

Long before the 2010 political uprisings in North Africa and the Middle East, it was widely perceived that the development of modern ICTs would boost democratisation and political evolution (Tettey, 2001). These high expectations were anchored on the grounds that the ICT revolution worldwide would fundamentally alter access to



information, dislodge established social customs and traditional political allegiances, unleash new ways of citizen consciousness and civic obligation by the oppressed masses, and generate new and decisive political outcomes (McClurg, 2003; Oates & Gibson, 2006; Mossberger, et al., 2007; Wilhelm, 2000). While these dynamics have long been observed in newly instituted democracies many analysts believe they are the ultimate result of the 2008 U.S. presidential elections, in which Barack Obama deftly deployed ICTs, especially the Internet, in mobilising a virtual constituency and orchestrating his political triumph (Miller, 2008).

It is worth mentioning that Donald Trump, the President of the United States of America today, deploys ICT and technological forms made possible due to developments in ICT, such as the social media websites (in particular, Twitter) as a means of his communication directly with the people of America. This could be said to be an improvement in public service transmission, as it allows for immediate dissemination and the support for information dissemination between ICT-enabled administrations on the other, which is a fundamental growth in character of institutional and policy legitimacy of the authority itself. In the "pan-European" circumstance, ICTs have assumed strategic and political significance across all boards.

### **5.3.2 A Simple Model of Democratic Politics**

The Figure (5.1) below is a model of a simple mobilisation belt image of politics. The belt begins with citizens who were interested in political matters, policies, and political actors. Citizens developed interest associations with social movement and organisations, referred to as pressure groups to advocate for specific needs and policies.

When the groups are formed they reciprocally recruit and mobilise citizens to make urgent and immediate demands. The group and citizens communicate their opinion in the public sphere in which they address public interests with one another in coffee shops and town squares as practised in the traditional rural areas in Nigeria (as in today's social media and the Internet). These traditional organisations, the interactions and exchanges taking place in the public sphere are located outside of government. In a democratic society, however, they manage the personnel and the activities of the government. Through the mechanisms of elections, lobbying, and communicative

pressure (of which the pressure of common opinion is one), they exercise determine which politicians hold office. Between elections, traditional organisations, and public opinion also exert pressures on the public agencies that compose government. Government action is at the end of this conveyor belt. Government acts in one of two ways: by passing laws and policies, and by acting directly in the world although actions of agencies. (Fung et.al., 2013).

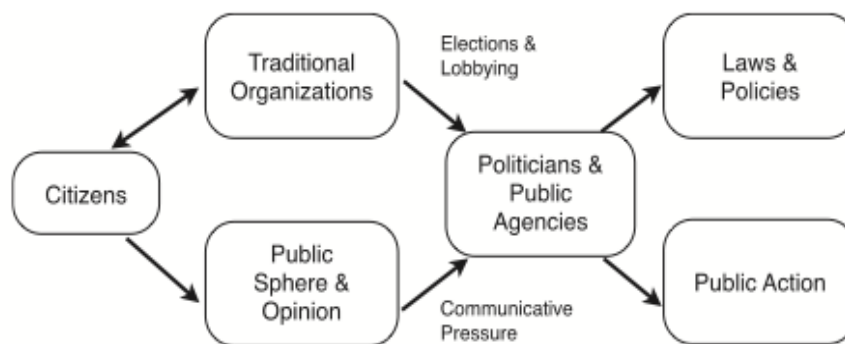


Figure 5.1 Stylised political model Source : Adapted from Fung A.et.al., (2013) Six Models for the Internet + Politics : International Studies Review (2013) 15, p. 30–47

Digital technologies hasten the flow of communication by reducing the transmission time, and are some of the foremost advantages of the Internet for political purposes, claim on the transfer notions of the public sphere. These technologies enable many-to-many communication (whereas radio and television are one-to-many broadcast technologies), and lowers both the costs of getting vast information and the costs of creating and expressing all sorts of views, including political views. The implicit diagnosis is that the pre-Internet, public sphere is democratically deficient because it allows too few speakers and too narrow a range of messages. Digitalisation, hence offers prospective for democratisation by broadening the range, scope and agency of public growth to sections that did not have the opportunities for it earlier.

Digital communication can increase close obligation between citizens and their governments in policymaking. In order for it to do so, however, politicians and policymakers must want to engage directly with their citizens (Fung et.al., (2013).

When the digital age began, many scholars and practitioners believed that a central contribution of the new ICTs to democracy would be in enabling direct connections between citizens on one hand and politicians and policy makers on the other. In this context, ICT can be understood as removing the “middle men”, the intermediaries of traditional organisations and media between citizens and government and hence ushers in an era of direct and participatory digital democracy as depicted in today’s politics in USA. The President can interact directly with the citizen through the social media without necessarily passing through mainstream media houses and other mediums. ICT has great potential to enable citizens to communicate directly with government.

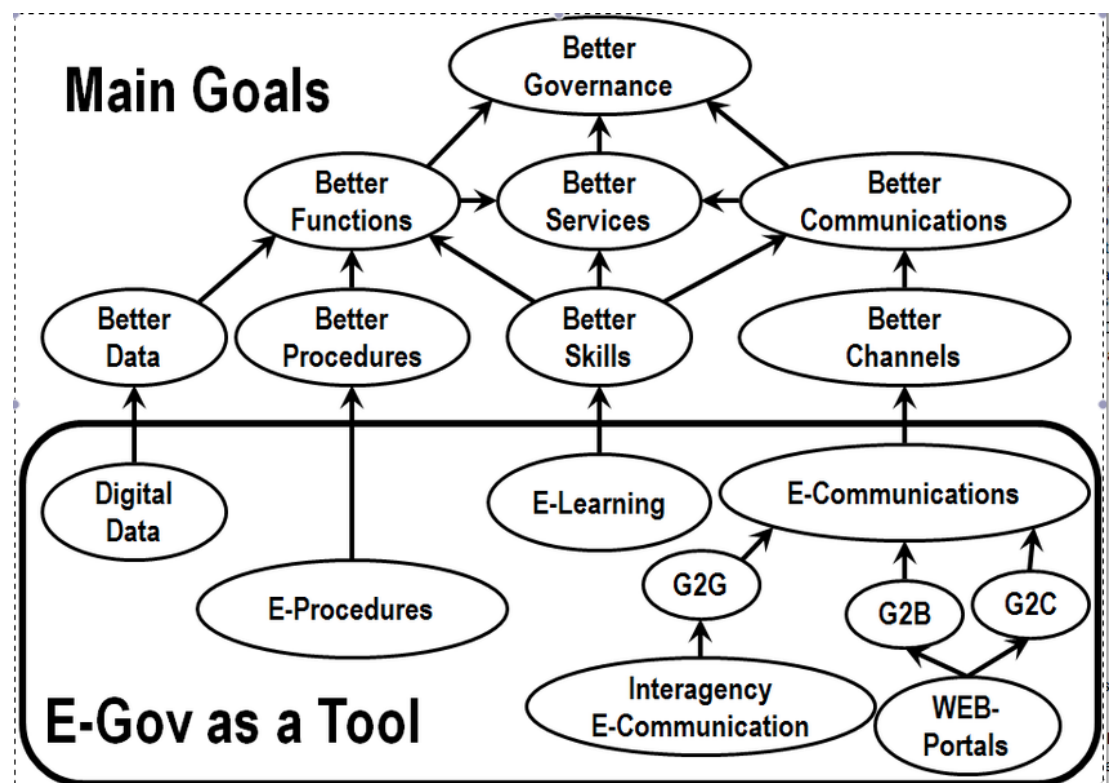


Figure 5.2 E.government made communication better. (Bershadskaya, Chugunov and Trutnev, 2012).

### 5.3.3 ICT for Social Economic Development

According to Yamoah et al. (2016), the success of any business process depends on the use of relevant information and the ability of the enterprise responsible to exploit

business analytics (Davenport and Harris, 2007; Davenport et al., 2010; Yamoah et al., 2016). Major retailers in the UK, in their quest to remain competitive, are adopting information technology to manage, acquire and put to use consumer' information (Burt et al., 2010; Ziliani and Bellini, 2004). Typical examples are the Tesco Clubcard and the Sainsbury's Nectar card, which are used to harvest consumer's private information for marketing and strategic decision making (Humby et al., 2008). On the contrary, small and medium enterprises (SMES) operating within the same market do not have the resources to develop their own databases in order to extract consumer information (Baker and Sinkula, 2009). Again, SMEs are unlikely to have both in-house information and resources, as well as the communication technology (ICT) expertise to exploit such data, and also lack the financial power to utilise outsourced expertise (Cacciolatti et al., 2009).

Rapid innovations in technology are making ICTs both more cost-sustainable and easier to use thereby bringing the power of ICTs within the reach of a greater number of people. These qualities make ICTs highly relevant and useful in the contemporary global scenario. As many developing nations have recognised ICT's potential to spur local economic growth, the need to expand and reach the effectiveness of development initiatives is enormous.

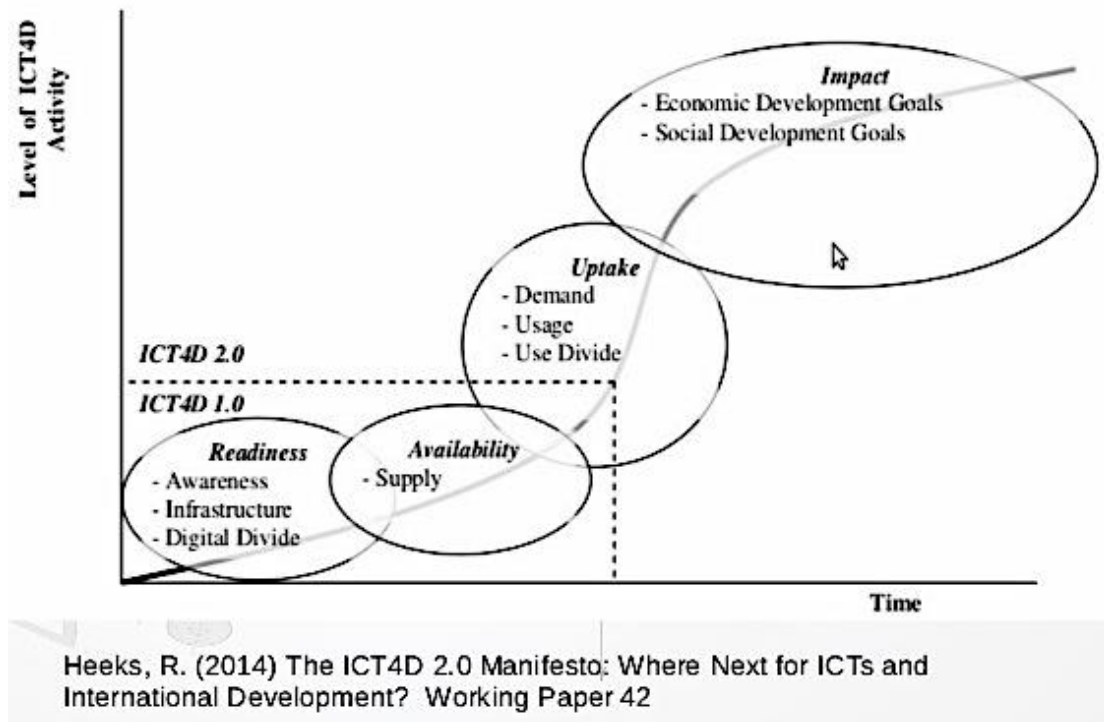


Figure 5.3. Changing ICT4D issues over time. Source: The ICT4D Manifesto: Where next for ICTs and International development? (Heeks, 2009).

#### 5.3.4 ICT and Culture

The divide between the roles and status of men and women among the ethnic group of Northern Hausa of Nigeria will lead to perceptions of awareness channels that will differ to that of other ethnic communities, such as the Yoruba or Ibos (Morgan et al., 2004). While the greater independence demonstrated by the Ibo and Yoruba women in social activities suggests greater liberty and freedom that is not the case in other parts and among other communities residing in Northern Nigeria. Cultural differences have implications on activities such as watching programmes transmitted on television. The cultural beliefs and traditions of the Hausa dictate that women's participation in social or political associations must be only through the permission of their husbands and family members. Further perceptions of the gender of the technology itself (technology has cultural perspective) also shape people's ideas about how e-Government awareness could be accomplished. An association of ICTs with women's work (secretarial and administrative roles) have led to the view of e-Government provisions as a female arena. Such views held by the inhabitants of the area have impacts on the acceptance of e-Government provisions.

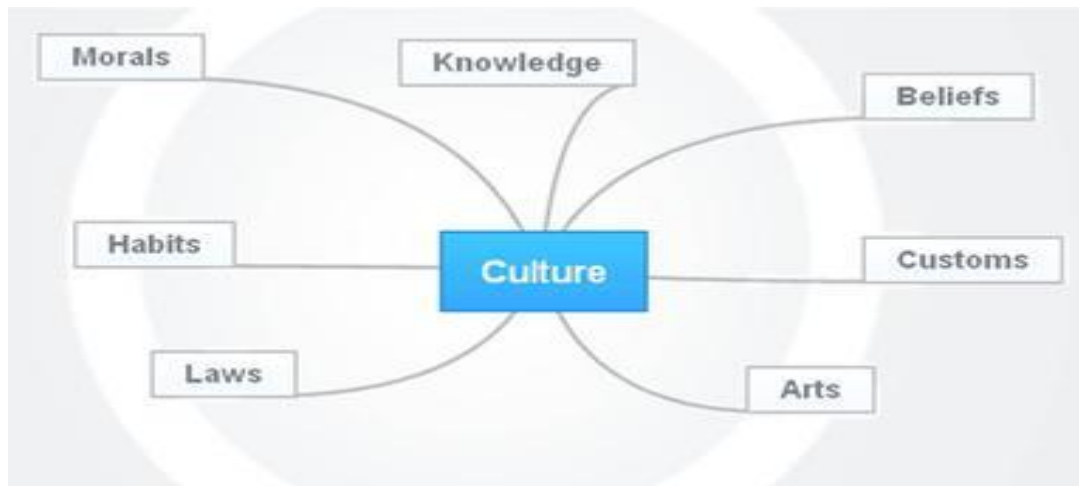


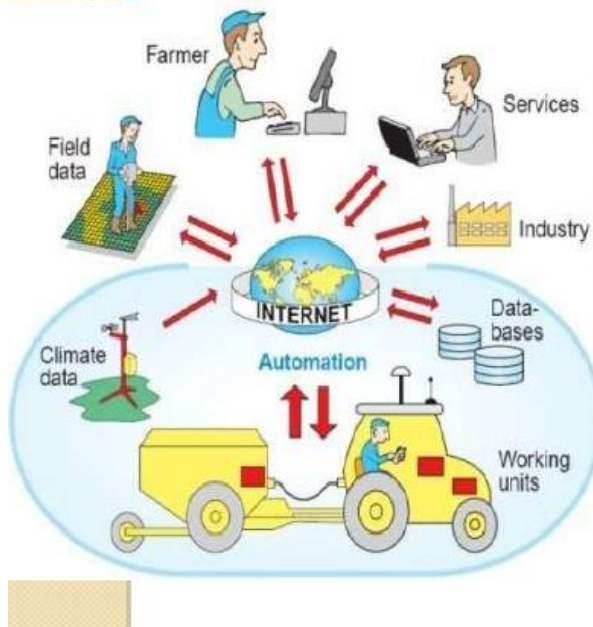
Figure 5.4 ICT and culture. Source: Chis-and Sid-ITC

### 5.3.5 Agriculture

As indicated in Figure: 5.5, The use of ICT demonstrates great potential in terms of enhancing agricultural extension services and improving market accessibility to rural farmers. ICTs provide inputs and information on wide-ranging aspects such as weather patterns, markets, and global prices to farmers in Nigeria. Harnessing these potential benefits requires the right framework for utilisation of ICT and related developments. The implementation of this kind of structure revolves around appropriate government policies, such as encouraging participation in youth ICT volunteer groups, motivating youth interest via the Young Farmers Association, blending communication between focus groups in various communities, and developing relevant government extension services and policy implementation agencies.



# IT IN AGRICULTURE



Assisting with farm inputs and weather patterns to market information and global prices, computers are becoming powerful tools.

Jul 3, 2010

Figure: 5.5 ICT and Agriculture. Source: Atul Shamar ITTM-WS:09/10- (Shamar,2010).

## 5.3.6 Education

The importance of ICT integration in education is indicated in figure 5.6. In Nigeria today, there is rapid communication plus increased access to ICT at home and work and in educational establishments. This could mean that learning has become a truly lifelong activity: one in which the pace of technological change forces constant evaluation of the learning process itself. In the developments made lately the possession of basic ICT skills and capabilities have been made compulsory as a part of the national minimum criterion for teacher education at the Nigeria Certificate of Education and first degree in education levels. Several universities in Nigeria have also made ICT skills a basic requirement for students who want to continue their education or are ready to graduate. The education of teachers and professionals working in colleges have also been impacted by the ICT revolution. Figure 5.6 illustrates the reasons for ICT integration in the Nigerian education system.

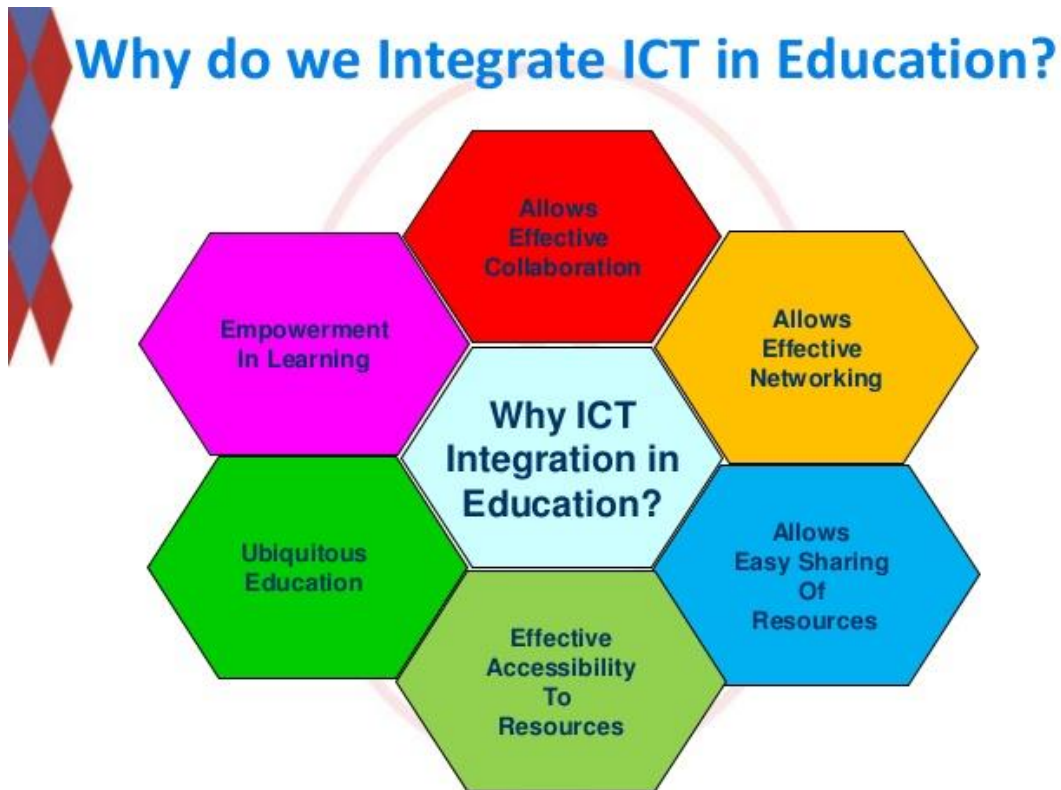


Figure 5.6 Importance of ICT integration in education. Source: Adapted from: Venansius Baryamureeba VC UTAMU ICT Integration in Higher Education: My Perspectives and Way Forward (2014).

The Nigerian government in 2003 signed an agreement with the private enterprise, Microsoft, for a three-year programme for the deployment of ICTs to accelerate economic growth. The collaboration has helped Nigeria to build its software development industry and has also provided an impetus to Microsoft software tools. The Agreement was also meant to stimulate private entrepreneurship and enhance Nigeria's global competitiveness. Microsoft was able to, therefore, provide support for computers for all Nigerian's enterprises and produce their software in three local languages, Hausa, Igbo, and Yoruba, all through 2007 (Agyeman, 2007).



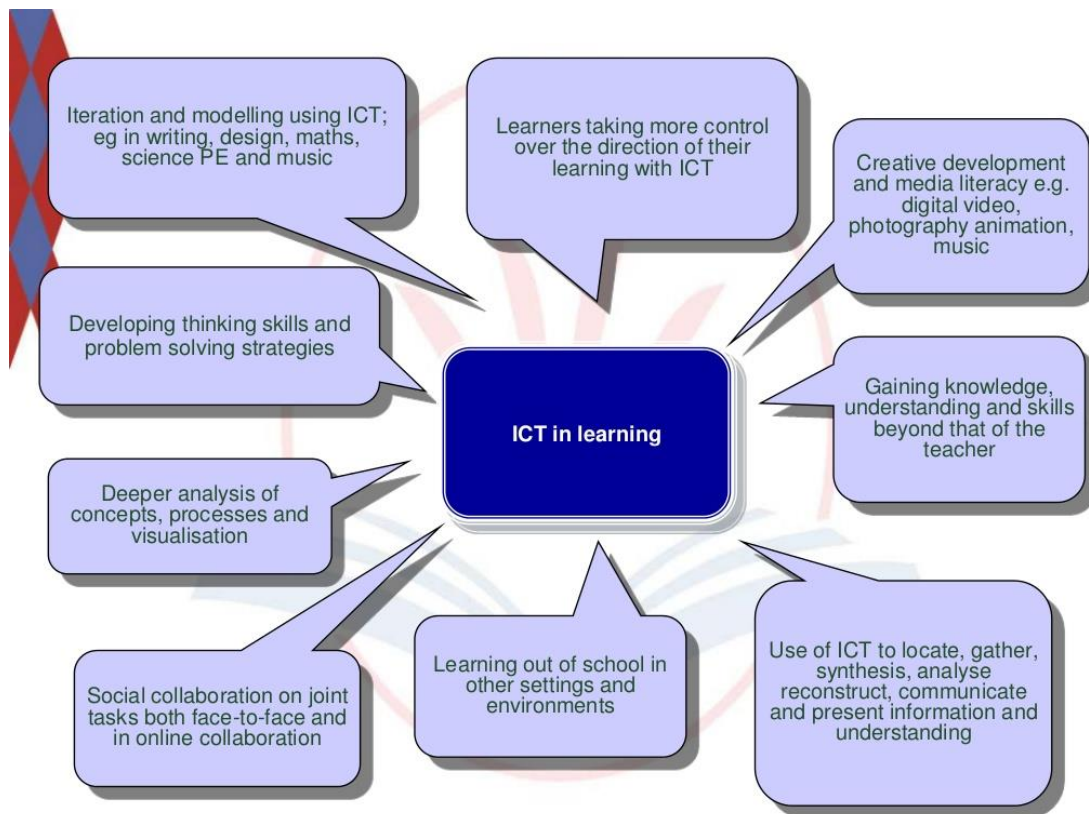


Figure 5.7 ICT in learning .Source: Adapted from Venansius Baryamureeba VC UTAMU ICT Integration in Higher Education: My Perspectives and Way Forward (2014)

### 5.3.7 Health

ICT has completely revolutionised the health sector and has led to the rise of enterprises that harness the power of ICT. One of these companies responsible for this transformation is SymlConnect Vision. The organisation aims to allow secure, safe, and seamless communication of health record information between existing systems and people, exceeding the geographical or organisational boundaries. Through activities such as sharing relevant information on demand from appropriate users to achieve informed, seamless, and collaborative decision-making, SymlConnect has been able to deliver excellence healthcare information with innovative application of standards-based ICT and mobile technologies. The technology remains an enabler to innovative solutions customised to user needs.

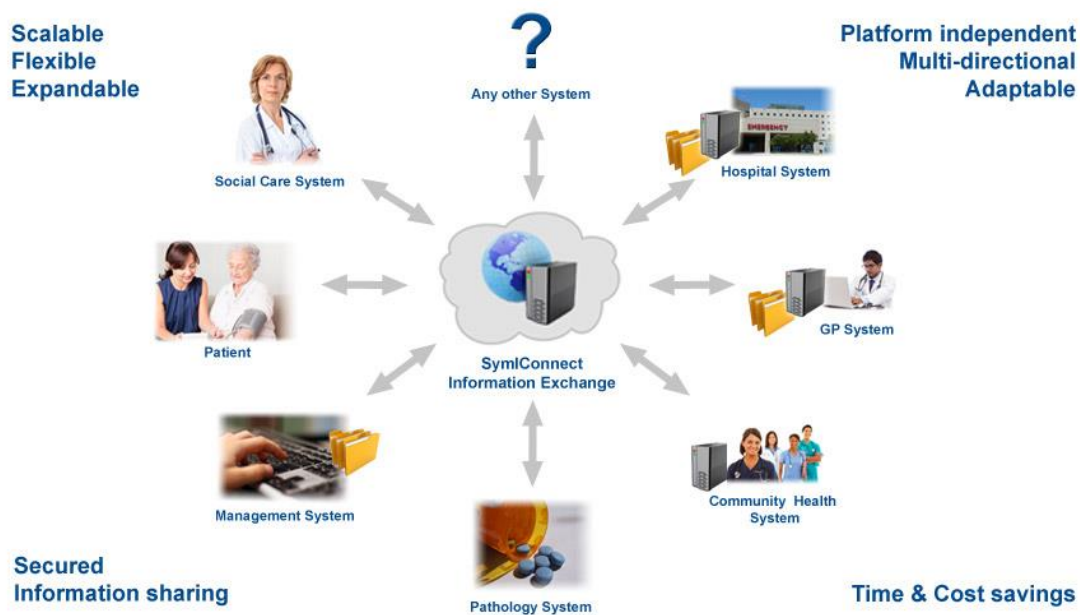


Figure 5.8 Health Information sharing through SymIConnect Vision. Source: SymIConnect Vision

However, there are negative health impacts stemming from frequent and lengthy use of the computers. These include repetitive strain injury and/or back/neck strain, dependency or addition, eyestrain, and extremely low frequency (ELF) radiation. (WHO Media Centre, 2007).

### **Repetitive Strain Injury**

Injury may occur to the tendons as a result of the continuous use of the mouse and keyboard. The persistent use and the daily use of the arm will wear out the tendons of the hand or wrist.

In order to prevent such detrimental consequences, it is advisable that short rests be frequently observed, and exercises such as the stretching of the hand and wrist are observed.

### **Dependency**

There is the possibility of addiction particularly with young people who frequently play computer games. This often led to health hazards and social problems such as people not socialising or mixing well.

### **Eyestrain**

Excessive use of computers can cause eyestrain, especially if the brightness and contrast of the displays are badly adjusted, or the lighting in the room causes shadows on the monitor screen. However, properly adjusted monitors and displays should help prevent eyestrain.

### **ELF Radiation**

There is a rising concern among the general populace about possible health hazards from ELF (extremely low frequency) electromagnetic fields and computer monitors give off enough radiation as to be considered potentially hazardous. (“The Teacher: Health and Safety: Teaching and Revision Notes, 2009”)

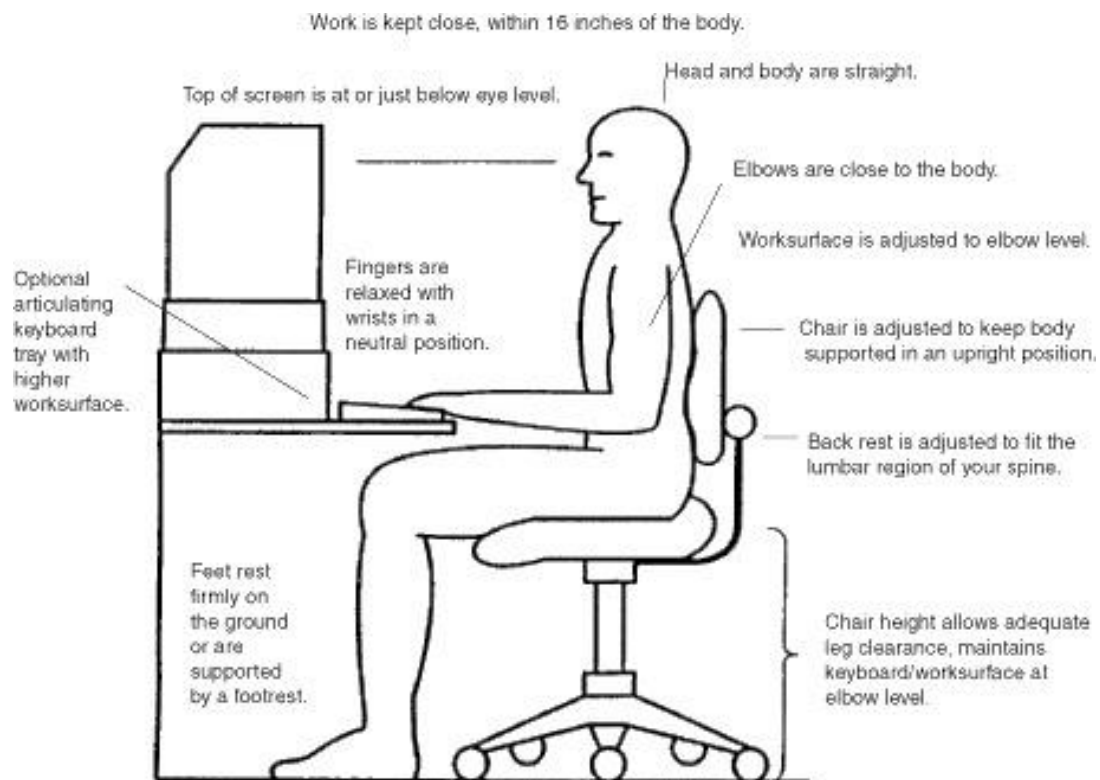


Figure 5.9 ICT health hazards. Source: Ergonomics is the study of the interaction between the worker and his /her environment.

### **5.3.8 ICT in Security and Crime**

Undoubtedly developments in ICT have been linked to business successes, politics, and national development for over a decade ago now. It has, therefore become a very attractive target for malicious hackers, not only from outside the country but also

from within, and a very potent tool that could be directed at bringing down critical business infrastructures and endangering national security, progress and development; thus lowering the competitive edge of many enterprises and organisations in the world market. These facts become evident if one explores the developmental histories of Microsoft and Google over the last decade, and how they nurture violence, terrorism, and other vices that hamper progress and national development respectively. ICT has consistently been established as a powerful double-edged sword with a capacity for both remarkable good and devastating evil, all depending on the skills and values of the user(s), and those in the position of controlling its powers in either or both directions (Ogu et al., 2014).

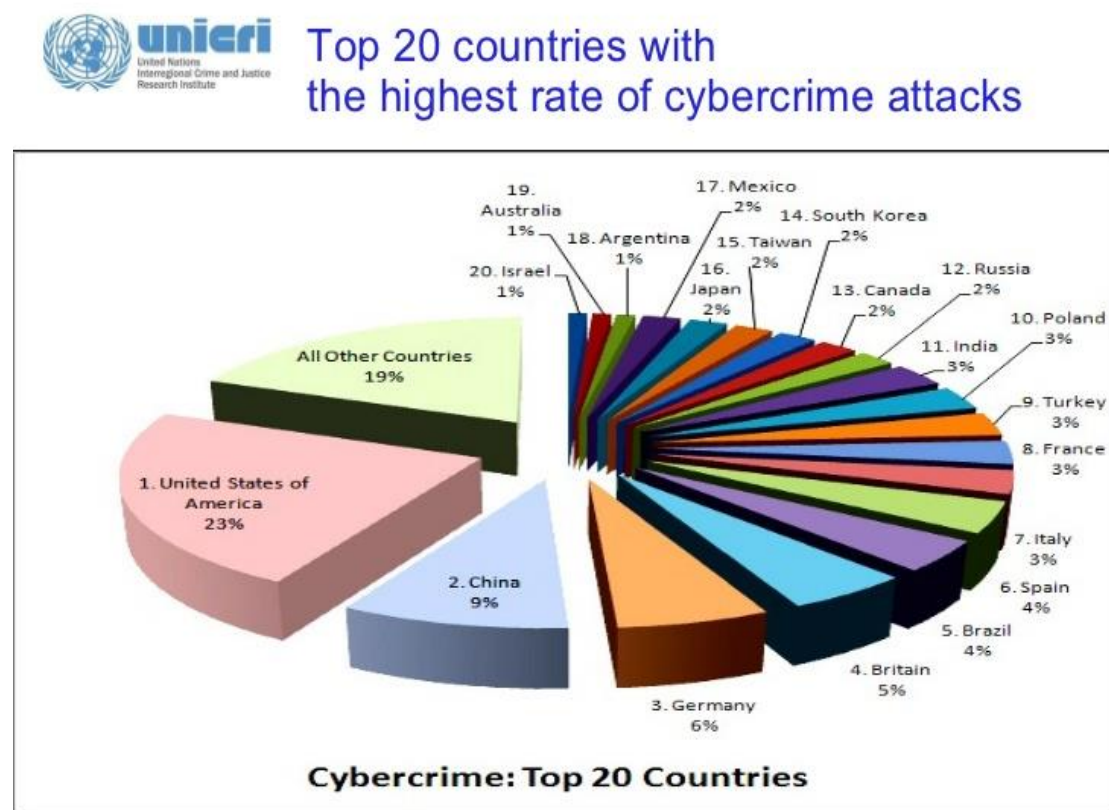


Figure 5.10 Cybercrime top countries. Source: UNICRI advancing security, serving justice building peace

Most developing countries such as Nigeria have no efficient communication technology and related services; this, indeed, has remained a bane to good governance

particularly in the African region. The need to make information available in the right form, to the right user, both at personal and organisational levels, and at the right time; the effort at coping with the enormous flood of information has driven the need for a more sophisticated way of handling data faster and better in Nigeria (Adesanya, 2002). Hence, communication technology and governance, along with its policies and regulations in the industry, can only be described as irregular, at best. There remains large unexplored possibilities for the development of these sectors. Despite the phenomenal impacts of ICT on the socio-economic lives of the citizen, governance has not been able to optimise the level of benefits it offers for development. The communication sector and the services provided are riddled with corruption, mismanagement, and ineffective provision of service delivery to consumers (Guha, 2006). The issue of corruption and mismanagement in the sector could be viewed from ethical theory as well as governance or stakeholder theory. The section on Research Ethics will address the issues relating to moral value from a Kantian ethical perspective (see chapter 2).

Nigeria is confronted with enormous difficulties in terms of ensuring egalitarian access to information. These problems, especially that of low-level of telephone penetration and uneven access, appear to be insurmountable. The diffusion rate in Nigeria in the 20th century was less than one line per 1000 population (African Information Society Initiative, 2005). The focus of the communication technology sector is on providing services to the society and for governance to facilitate development. Therefore, communication and governance theory has a theoretical framework oriented towards drafting policies and regulatory measures underpinning the paradigm and methodological factors for this research.

Given the models of politics and of ICT usage in various sectors, all of which were discussed in the previous section, a simple working model for the use of ICT and its role in governance in Nigeria can be constructed:

The research aims and objectives drafted led to the adoption of research methods of data collection such as through survey questionnaires, structured and semi-structured interviews, and focus group discussion. According to Guba and Lincoln (1994), both quantitative and qualitative methods can be appropriate within any research paradigm. Using the “triangulation” method, the analysis of the survey was complementary to

the outcomes on the interviews and focus group discussion for a holistic result on the findings. The data collection was a combination of primary and secondary data, acquired through those involved for decision making and management of communication sector and other stakeholder responsibilities. The research used hermeneutics and ethnographic analysis of the data systemically collected from consumers and those responsible for decision making and management of the communications industry and other stakeholders. The analysis of the responses from the interviews, focus discussion, and survey questionnaires revealed how diverse factors such as corruption, culture, bureaucracy, and poor regulations affects the communication industry and the services provided to their consumers. Finally, the results of the interviews and focus group discussion, together with what the documentary evidence revealed, were integrated in order to develop a formal model on communication and good governance in Nigeria.

#### **5. 4 Communication and Governance: Working Definitions**

As stated in the literature review in Chapter 2, communication is a two-way exercise which enables people to exchange encodes-decode news, information, feelings, and ideas and create and share meaning. It can also be a process of connecting places or people (Littlejohn, 1992; McQuail & Windahl, 1986). George (1976) opines that communication should be seen as a means of structuring conceptualisations, the task of selection of pertinent concepts and influencing how an account should be created. However, Howell (2013) posited that grand theory and philosophical framework allow the understanding of communication in a universal context but unable to produce foresight of historical determinism. Communication, in the context of culture, whether interpersonal or mediated communication, is presented, received, reacted, and acted upon. To paraphrase technical jargon, a "signal of compliance" must be given to indicate that a message has been received. There will always be three major actors involved in a communication/cultural context in today's developing world, the government, media community, and the people (Hanson & Narula, 1990).

Familiarity with the theory of communication helped the researcher to gain and evaluate the responses in terms of modernism and post-modernism.. The analyses of the text also included cultural and historical influences that are underpinning individual positions on ICT.

In recent decades, the notion of governance has been reconfigured in different ways (Kjær, 2004). Crozier (2007) looked at the term *governance* as more or less synonymous with the “government,” referring to the formal and institutional processes and the administration of the state: how governments make and enforce judgments to ensure public order and facilitate collective action. However, there in certain kinds of literature that governance now refers to, the government is only one among various actors involved in governance (Kjær, 2004). The theory of communication and governance will look at the two in terms of dialectical discourse and parts of modernity in communication. The theory will also consider elements of post-modernity in the respondent’s view on ICT.

Government units all over the world have started taking initiatives for adopting e-Government practices (The Advisory Committee, 2008). Thus, in the first decade of the 21st century, striving and managing government services through ICTs, that is, e-Government, has emerged as one of the greatest innovations in the public sector (Committee, 2008; Fose, 2002). Governments and even presidents of the world today such as Donald Trump convey their messages directly through Twitter to reach the citizens directly. Today in Nigeria, almost all government business is transacted electronically.

As discussed in Chapter 2, culture is a broad term that involves a diffuse set of ideas that can vary from the very inclusive “human-made” part of the environment to a shared meaning of a system (Sheweder & Levine, 1984). This involves actual behaviour as well as interpretations of behaviour, and those social, political and other factors that influence an individual’s behaviour and attitude, which are then translated into actions (Smith et al., 2002). To identify relationships between individuals and society, we need to examine issues such as culture and agency. Williams (1962) succinctly defined culture as “a particular way of life (primary sources)” that is dispensed by a community and shaped by values, traditions, beliefs, substantial objects, and territory. From this perspective, culture is a mixed and dynamic ecology of people, things, rituals, daily activities, and settings (Lull, 2000). The researcher takes a close view at the cultural influences on the respondent opinions and impacts of culture in ICT reception in parts of Nigeria.

In a cultural context, whether the type of communication is interpersonal or mediated, communication is presented, received, reacted, and acted upon. A "signal of compliance" must be given to indicate that a message has been received even when paraphrased in technical jargon. According to Hanson and Narula (1990), there are three major actors involved in a communication/cultural context in the developing countries: the government, the media community, and the general populace. The efficacy of a particular technology relies on the dominant cultural ideology. For example, in a country like India, the cultural ideology toward technology is certainly pro-social, and the application favours the medium of television as a purveyor of the ideology. As a result, more efforts are made to develop TV technology rather than other technologies that do not enhance cultural goals. In the United States, the cultural ideology of labour-saving devices (such as the computer) shows that there may be further versatility and incentive to produce more computer technologies that enable television to experience growth and development (Hanson & Narula, 1990). In this research, the culture of communication in governance is identified as providing a unique opportunity to understand failures in the communication industry, particularly in Nigeria.

Honderich (1995) argues that development is the act of enhancing the state of being, ensuring everyone has the choice of what life looks like. It usually results in growth and brings benefits to people. Development is needed to provide people with the necessities of life and self-esteem. Since information is a vital instrument to development, the researcher took note of development since the year 2000, when the Federal government fully liberalised the ICT industry in Nigeria. For any nation to grow, it needs to have and provide relevant, updated, and adequate information on areas such as food security, democracy, health, and education. These were the reasons for the adoption of telephone, radio, film, and even to some extent, television, as channels of communication among diverse segments of the human population (Hughes, 2003; Pringle & David, 2002). Developing countries have wrestled with the problems of technology transfer, indigenous production of hardware and software, and bilateral or multilateral negotiations with other nations (developed or developing) to make these technologies attain the present operational levels (Ferguson 1986). Information has increasingly been a vital element in the development of human society and has formed over an extended period in the way we think and act (Meyer,



2005). There is growing evidence of increases in ICT diffusion being associated with increases in the rate of economic growth (Kelly et al., 2010; Roeller & Waverman, 2001). Producing the human potential of both men and women is the only route to reaching the developmental needs of countries and assuring their competitiveness in the global economy. Information is crucial for increasing agricultural production and improving marketing and distribution strategies (Oladele, 2006). Information also opens windows of giving out experiences, best practices, roots of financial aids and new markets. In the same vein, information enables farmers to make informed decisions regarding production and marketing and to manage their lives successfully to cope with everyday problems and to realise their opportunities (Idiegbeyan-ose & Idiegbeyan-ose, 2009; Matovelo, 2008).

The researcher's interpretation of the text obtained in the interviews and focus groups as well as in the documents was guided by Ferdinand de Saussure and Michael Foucault's language perceptions on structuralism and poststructuralism respectively, as discussed in detail in Chapter 2. Post-structuralism maybe considered as an aspect of postmodernism and concentrates on discourse and language patterns linked with subjectivity and identity (Howell, 2013). This will help in the analyses of the data collected on whether responses were based on the modernist or postmodernist word sense.

## **5. 5 Summary**

This chapter was aimed at laying out the theoretical framework adopted for the present research study by looking at various theoretical models developed over time. It also touched on an overview of the theoretical and empirical literature on communication and governance, after engaging with the notion of governance.

Due to the fact that ICTs can be used for a diverse range of human activities and experiences, they are continually revolutionising virtually every sector of society and the economy (Riley 2000). In the present study existing theory and thought on communication and governance, culture, development, structuralism and post-structuralism, and dialectics were synthesised together in a framework for a holistic investigation into the impacts of communication technology in the development of the key economic and technological sectors in Nigeria. Hence, the data collection and analysis targeted sectors and areas such as ICT and communication facilitation

(information dissemination: easy, faster and timely). ICT in governance in Nigeria therefore, affects (a platform for online political activity and electronic-government), security and government (the fight against crime), socio-economic development, agricultural activities, education services, health, and banking.

Digital breakthroughs in ICTs and related fields are producing new possibilities and avenues for improving health and nutrition, expanding knowledge, stimulating economic growth, and empowering people to participate in their communities globally. Rapid innovations in technology have been instrumental in making ICTs financially feasible and easier to use, thereby bringing the power of ICTs within the reach of a greater number of people. These features make ICTs highly relevant for developing countries like Nigeria. The extent to which these claims are true will be examined in the analysis of the collected data from different sources and documents.

All possible factors that may have an effect on the further development and growth of ICT sector, which in turn will bring along proper strategies for the development of the information society through the introduction of interventions and solutions, are key in context of the present investigation. It can be asserted that ICTs have had positive impacts on the economic, social, and political development of nations, regions or communities. While the aforementioned claim is easy to make, it is not easy to quantify it in a way that yields an explanatory and predictive theoretical understanding which can be applied to process of drafting information policies. Many international organisations and economies consider this as a fundamental element when it comes to effective information policy-making. It is not enough to place ICTs onto the development agenda without also addressing and giving due consideration to other critical elements in the development equation. Governments, especially those of developing countries, need to understand all the disparate forces that drive the growth of ICT sector because they can be critical to further development of the field. Companies functioning in this sector also must understand the multitudinous factors that affect the growth of the ICT sector in order to remain sustainable and competitive in this market. The importance of studying the elements, on which the growth of the sector depends, their impacts on governance, and the challenges faced can lead to the design of the proper strategies and interventions that will make a positive change in all the related aspects within ICT sector.

## **CHAPTER SIX: DATA COLLECTION PROCESSES**

### **6:1 Introduction**

The objective of this chapter is to explain the various processes used in the gathering of primary and secondary materials for the study. “No matter what philosophical position or paradigm of inquiry used in a research project, it is always possible to use a combination of research methods when collecting data. The rationale for the balance between these methods will depend on the objectives of the research and the extent to which qualitative or quantitative techniques are to be utilised” (Howell, 2013.p.194).

The mixed methods approach is defined as a combination of the methods of data collection that provides enhanced validity. It is instrumental in evaluating the research problem from a range of diverse standpoints, reduces lacuna in the process of acquiring data as it does not entirely rely on one methodology for attaining relevant data (Bulsara, 2015). In certain research studies, when both qualitative and quantitative methods of data collection are employed, adopting the mixed methods becomes the desired course of action to receive optimal results. This assimilative approach is useful in conserving financial resources, avoiding bias, makes the research process feasible when considering time-frames and other constraints. Hence, studies that employ the mixed methods approach are understood as being more reliable and possessing higher levels of originality and integrity (Creswell, 2013).

The researcher, therefore, used a mixed methods approach in carrying out the research, which required collecting, interpreting, and combining (or mixing) quantitative and qualitative investigation (and data) for an independent study and to achieve a longitudinal program of examination. The purpose of this form of inquiry (qualitative and quantitative) when combined, is to produce a better understanding and conclusion for the research questions and objectives. It also provides a greater breadth of perspectives around the issue discussed and helped to overcome the deficiencies in one method only.

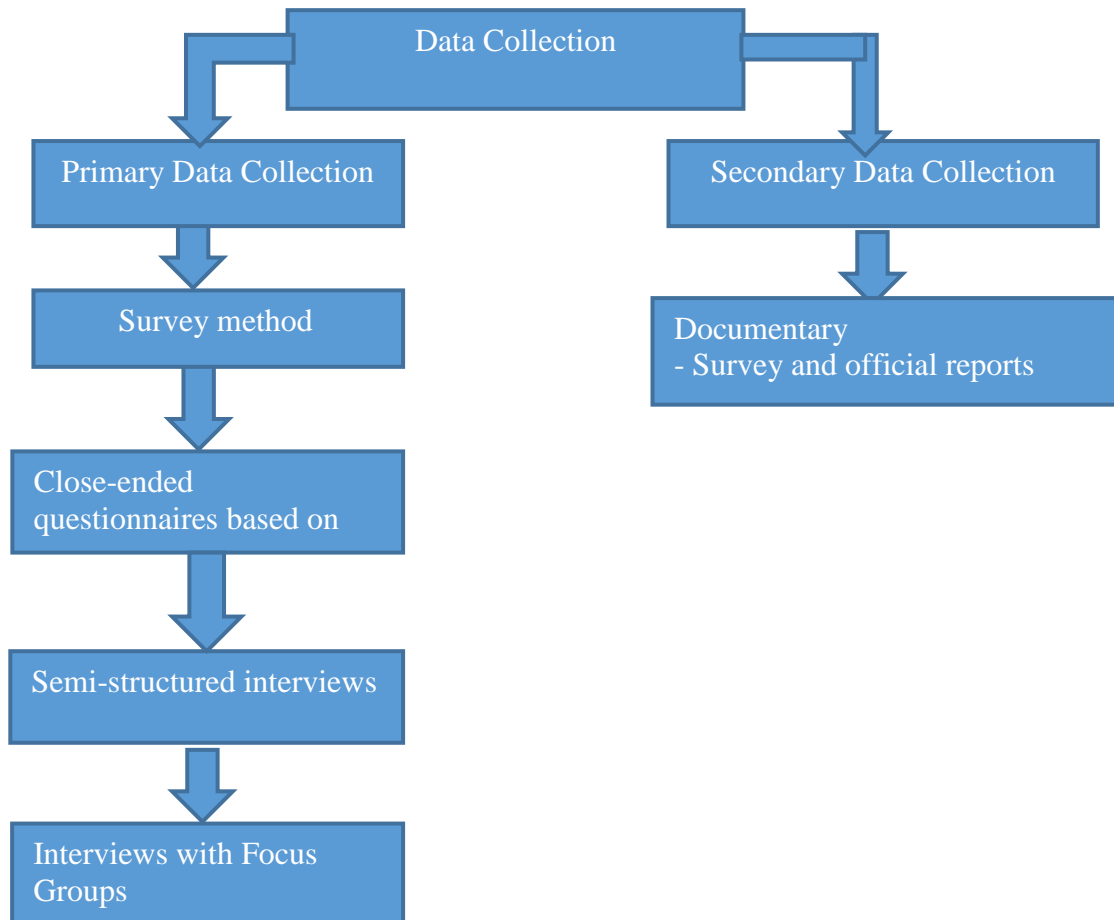


Figure 6.1 Data collection flowchart (source: author)

The researcher used surveys (Likert scale), interviews, focus groups, and documentary data sourced from the library and various relevant agencies of the communication industries while collecting the data for the research. The chapter also provides discussions on data accessibility, methods of data collection, and challenges experienced in the course of sourcing useful information for the project work.

The data for the research were collected in three stages: survey questionnaires, which were mainly designed to gain access; semi-structured interview questions, focus group interview and documentary material gathering. The researcher used hermeneutics as a methodology to analyse the documentary data collected, semi-structured interviews and the focus group discussion to arrive at the conclusions.

The study employed the mixed methods approach for the sake of avoiding any gaps in the process of data collections, hence the type of data collected was determined and governed by the research objectives that were identified for the study. The Likert

scale based questionnaires were used to gain information related to the access and feasibility of ICT among the populace. The interviews were focused on participants in the public communication sectors and selected professionals and users of communication apparatuses. The interview method was primarily used in order to attain the objective of identifying the inroads, challenges, and possible suggestions for expansion of ICT benefits in Nigeria. Hence, the interviewer engaged professionals working in the sector and those that possess knowledge of ICT and its overall impact on communication and governance in the country. The focus group discussion, was oriented towards gauging the influence of governance related interventions on development in the country. They were also undertaken with the aim of getting more detailed insight into impediments to ICT programmes in the state and suggestions for overcoming them. The secondary data collection through the relevant documentary data obtained from various communication parastatals, including the regulatory agencies of the industry, other associated reports relating to ICT in Nigeria were meant for the hermeneutic analysis on the evolution of communication. This secondary material is also used to gain information about the existing state of affairs with respect to ICT development in the country.

## **6.2 Participant Sample Selection**

To Collis and Hussey (2009), selecting a sample is a fundamental element of a positivistic study. A sample is made up of members of a population or refers to some people or any other collection of items under consideration for research purposes. The process of selecting a sample usually includes the selection of a suitable subsection or subpart from the overall population, in order to estimate and approximate the particularities of the larger population. Hence sampling refers to the process of using a smaller selection to understand the larger population. It relies on the principle that the selection made is equivalent to the larger population in terms of characteristics and attributes. It can be understood as a process of generalisation, but one that is carried out under the supervision of statistical tools and methods. The particularities of the “sampling frame” are taken as predominant in the population, and further analysis and deductions are made on the basis of these observations in the selection. Sampling is useful as it facilitates and enhances the pace of the process of acquiring data, and can also be useful in order to ensure that the data gathered is precise and error-free (Sarantakos, 2012). Sampling techniques are divided into two

major categories, those that fall under Probability Sampling techniques and others that are termed as Non-probability sampling. The fundamental difference between these two, is that within probability sampling each element in the population has an equal likelihood of being selected for the sampling, there is no innate bias towards the inclusion of particular units and the exclusion of other units. Non-probability sampling techniques are commonly used for qualitative research studies since the probability sampling techniques are not useful for qualitative research (Marshall and Rossman 2011).

**Judgmental or Purposive sampling-** A purposive sample also known as a judgmental or expert sample, is a sort of non-probability sample prevalent in this research work. The primary object of this sample is to provide an example that can be rationally considered to be representative of the group. This is often achieved by involving expert knowledge of the group to select in a non-random manner a sample of elements that represent a cross-section of the population (Lavraks, 2008).

In probability sampling, each component in the population has a known non-zero possibility of being picked for the use of a random choice procedure. In contrast, non-probability sampling does not include known non-zero probabilities of choice. Preferably, subjective approaches are used to determine which components should be added to the sample. Unlike random sampling, non-probability methods such as purposive sampling are not free from bias. Informants may be chosen out of convenience or from recommendations of knowledgeable people (Lopez et al. 1997, Seidler 1974, Smith 1983, Zelditch 1962).

In the non-probability sampling, the sample units that are selected or approved for the study are done so as to keep in mind some pre-determined or determining factors, which are aligned with the objectives that the study is aiming to realise. Hence the choice of the samples in this case can be termed as deliberate and not casual, depending on the topic of the research. Purposive sampling is considered as improvement over other sampling techniques such as Convenience sampling as the researcher employs their experience gained and the knowledge acquired during the process of the findings for the selection process. This can be helpful for the sampling exercise for the selection of units that can be considered as representative or prototypical of the whole population (Coleman, Morrison & Briggs, 2014). The

present study adopts the purposive sampling approach in terms of the selection of interviewees for the study and the focus group discussions. As such the selection of the professionals that were interviewed was done according to their relevance to key policy developments.

ICT in Nigeria is currently run under three key policy documents: the National Mass Communication Policy of 1990, the National Telecommunications Policy of 2000, and the National Policy for Information Technology of 2000. These reports, as well as other ICT policies and government pronouncements, are potentially consolidated into a new policy. Currently at the draft stage is the National ICT Policy of 2012, released in January 2012 by the Ministry of Communication Technology (MCT). This draft National ICT Policy explains the nation's ICT objective as a "knowledge-based globally competitive society" by 2020 (Ministerial Committee on ICT Policy Harmonisation, 2012, p. 12). Under the ICT and broadcast regulations and requirements, all internet providers and broadcast services in Nigeria are registered with the NCC and NBC, which supervises their operations.

To accomplish the objectives of the study, the researcher considered two main strategies from the outset. The first was to approach the Ministry of Communications Technology (MCT) and the Federal Ministry of Information and Culture, which are main communication bodies in Nigeria and their parastatals. These ministries and their parastatals were identified as the hub in which the phenomena underlying communication governance takes place in Nigeria. The managers in these institutions would obviously be responsible for communication apparatuses useful in governance and its policy implementation orchestrated through ICT organs and services. The aim was to obtain rich data that could account for variations and uncover nuances, so as to afford the researcher a "thick" explanation of what is going on. Strauss and Corbin (1998) indicated that it is necessary "to go to places, people or events that will maximise opportunities to discover variations among concepts and identify categories regarding their properties and dimensions" (p. 201).

### **6.3 Data Collection Method**

The researcher used the mixed method in the data collection. This will be analysed in-depth in the next three chapters, using both quantitative and qualitative methods and methodology. The analyses will involve integrating quantitative and qualitative

strategies towards producing new knowledge, hence, they include either concurrent or consecutive use of the two classes of techniques to follow a line of inquiry (Stange et al., 2006). The mixed method will mean integrating the two approaches in data collection and interpretation in the research or a plan of examination (Creswell et al., 2003).

Although there are established guidelines on the approaches for data collections for qualitative findings, Creswell (2007,p.130), identifies five universally known methods: interviews, observations, focus groups, documents, and audio-visual materials. He argues that the use of observation can involve non-participants and participants, while interviews can consist of both closed-ended and opened questioning. Focus groups create data in the interaction between featured participants. Documentary evidence could include literature and library documents such as reports and material kept in the archives, while audio-visual materials are considerably electronic facilities, photos and the likes.

The foundation of qualitative research is, however, an extensive data material sourcing from several and multiple cradles to enrich interpretations and outcomes (Creswell, 2009). In tandem with the research design that was aimed at gaining an understanding of the importance of communication in development that translates into good governance, the researcher used multiple methods of data collection, such as survey/questionnaires, interviews, focus group discussion and documentary materials. Other data drawn from organisations' reports and existing literature are complementary to the main primary data.

In generating theory, the use of multiple data collection techniques is encouraged, as it provides multiple perspectives and viewpoints. This allows for cross-checking, which in turn yields a stronger substantiation of the constructs (Glaser & Strauss, 1967).



**Table 6.1 Data Collection Scheme**

<b>Survey(Questionnaires) Likert scale:</b>	The survey questions were prepared in line with the objectives of the research, which provided access to the various institutions for both primary and secondary data collection. The researcher sent the questions to relevant stakeholders in the industry and professionals for response. The questionnaires were mostly Likert- scale structured.
<b>Interviews:</b>	The set of interviews here focused on key personalities from the public communication sectors knowledgeable in communication and its usage. Responses to the questions were useful data required for the effectiveness of ICT in governance and the challenges in the industry and to proffer solutions to the challenges in the industry.
<b>Focus Group Discussion:</b>	During the focus group discussion, the researcher asked similar interview questions about the effectiveness of communication in good governance translating on development. It, therefore, allows a holistic discussion and identification of the challenges confronting ICT programmes in Nigeria and ways to overcome the perennial problems.
<b>Secondary Sources: Documentary Materials</b>	The researcher also used other relevant documentary data obtained from various communication parastatals, including the regulatory agencies of the industry and other associated reports relating to ICT in Nigeria.

### **6.3.1 Survey Questionnaires (Likert scale)**

This is a form of scaling named after its inventor, psychologist Rensis Likert. It is a statistical method of attributing quantitative value to appreciate qualitative data, to make it amenable to statistical analysis. A numerical value is assigned to each

potential choice, and a mean figure for all the responses is computed at the end of the evaluation or survey.

Howell (2013) explains further that the “Likert scale was devised to automatically code data through a numerical scale. The survey requires respondents to agree or disagree with given statements on a scale of usually 1-5” (Howell 2013, p.196)

1=Strongly agree

2= Agree

3=Neither agree nor disagree

4=Disagree

5=Strongly disagree

### **6.3.2 Interviews**

Interviews, particularly when they are less structured, are effective for discovering hidden facts because they are flexible and interactive and allow for continuity (Rubin & Rubin, 1995). In the words of Easterby-Smith et al. (1991, p.71), “The most fundamental of all qualitative methods is in-depth interviewing” (p. 71), and at its heart is the aim “of understanding the experiences of different people and the meaning they make of those experiences’ (Seiman,1991, p.3).

Interviews are methods of data collection whereby selected interviewees are asked questions through verbal or visual means, to find out what they do, think or feel (Collis & Hussey, 2009). This will correctly be interpreted as the technique that provides qualitative researchers access to the meanings individuals attribute to their experiences and social worlds (Seiman,1991).

Moreover, this is a method that facilitates access to individuals’ attitudes and values—things that are rarely observed (Bryman & Bell, 2007).

The interviews were focused on participants in the public communication sectors and selected professionals and users of communication apparatuses. Considering the research topic of communication and governance in Nigeria and the objective of the research (to identify the benefits, challenges, and solutions to ICT use in Nigeria), the

interviews engaged a group of professionals and stakeholders who have residual knowledge on the challenges being faced by ICT users and its impact on communication and governance in Nigeria. The following professionals were engaged: journalists, editors that work in sectors that often use ICT facilities, senior managers of the enforcement unit at one of the regulatory agencies, senior lawyers with expertise in communication, ICT experts, and mobile service users.

### **6.3.3 Focus group discussion**

The purpose of a focus group discussion is to get collective views on a certain defined topic of the interest from a group who are known to have had certain experiences (Myers, 2009). Thus, focus group research is participatory and is a cycle of interaction between researchers and participants that begins and ends in shared activities and understanding (Howell, 2013). Furthermore, focus group discussions combine interviewing and observation but allow fresh data to be generated through the interaction of the group (Collins & Hussey, 2009).

The focus group discussion centred mainly on ICT benefits, challenges and solutions in Nigeria.

The focus group discussion, held in a meeting room, had in attendance key stakeholders with residual knowledge about ICT, especially its impacts and challenges in Nigeria. The following professionals were present: a lecturer in ICT, an industrialist who is a computer scientist and entrepreneur, a director of programmes in a renowned radio station in Abuja, a medical practitioner, and a student of one of the higher institutions in Nigeria, who represented the active ICT users. The researcher's questions were designed to follow the research objectives, and the discussants followed through by speaking openly about the benefits, challenges, and solutions to ICT use in Nigeria. They all actively participated in the discussion on all the questions raised. The raised issues and matters explored moved from one discussion topic to the next as different aspects of the issue were revealed. The questions were semi-structured or unstructured. Hussey and Hussey (1997, p.157) stated that semi-structured interviews do "not mean that the same questions should be asked, but that questions should be posed in the same way. Indeed what is important is to ensure the respondents understand the question in the same way" (p. 157).

According to Ozuem et al. (2016), “the researchers already know something about the specific people or events and deliberately select particular individuals or contexts because they are seen as instances likely to produce the most valuable data. Samples are selected with a specific purpose in mind, which reflects the particular qualities of the people or events chosen and their relevance for the investigation” (p. 279). This thus guided the choice of participants considered for both the interview session and the focus group discussion.

#### **6.3.4 Documentary Materials**

Although the primary sources for the research were survey information, interviews, and focus group discussions, documentary materials and reviewed literature were also used to identify relevant themes and served as secondary information sources. At this stage, among the first documents reviewed were the relevant theoretical literature on global communication with a specific focus on ICT usage in Nigeria. Dey (1993) refers to these as “accumulated knowledge” (p.66), thus considered as literature sensitivity by Strauss and Corbin (1998).

Glaser and Strauss (2009) advise that researchers should “use any material bearing on his/her area he can discover” (p. 69), and documentary materials, in particular, can help to stimulate the researcher’s theoretical sensitivity (Strauss, 1987; Strauss & Corbin, 1998). Documentary texts speak in the absence of speakers and, more importantly, remain similar across different and diverse local settings.

In this research, there were two main reasons for examining documentary materials that were either collected from the communication sectors directly or through their websites. The first was to comprehend the ways in which the actors were influenced by or had influenced the information contained in the documents. The second was to understand the nature of the impact these documents have had on ICT, development and governance in Nigeria. The value of records increases the comprehensiveness and validity of an investigation (Patton, 2002).

Furthermore, documents are seen as formal means of communication that demonstrate the competence, and often the expertise, of their producers (Miller & Alvarado, 2005), offering the social facts of the organization rather than representations of social reality (Atkinson & Coffey, 2011). In this research, the selection of documents to use was guided by the theoretical review of the literature.

Overall, the combination of semi-structured interviews and focus group discussion, further complemented by the relevant documentary materials, gave the researcher a broader understanding of the phenomenon at hand.

Relevant documentary data were obtained from the Federal Ministry of Communication Technology (FMCT) and some of its parastatals such as the Nigeria Broadcasting Corporation (NBC), Advertising Practitioners Council of Nigeria (APCN), Federal Radio Corporation of Nigeria (FRCN), the National Broadcasting Commission (NBC), the National Film & Video Board (NFVCB), News Agency of Nigeria (NAN), the Nigeria Television Authority (NTA), the Nigerian Communications Commission (NCC), the Nigerian Film Corporation (NFC), the Nigerian Institute of Public Relations (NIPR), Voice Of Nigeria (VON), the Nigerian Press Council (NPC), the Nigerian Postal Service (NIPOST), and the National Information Technology Development Agency (NITDA).

The documents relating to communication and governance in Nigeria consulted by the researcher included the following:

1. National Telecommunications Policy September 2000.
2. Federal Radio Corporation of Nigeria (FRCN) ACT –Decree No 8 of 1st April 1978 & Amendment Degree 1988
3. National Broadcasting Commission (NBC) Act, Cap. NII, laws of the Federation, 2004.
4. Voice of Nigeria Corporation (VON) Act-[1991 No. 15.](5th January 1990)-commencement.
- 5 Nigerian Television Authority (NTA) Act [1977 No. 24.] [1st April 1976] [Commencement.]
6. Documentary press releases on ICT impacts.
7. “Mommentators” from the Nigeria Communication Commission (NCC).
8. Voice Of Nigeria (VON) newsletters.

## **6.4 Data Accessibility and Challenges**

The impact of communication, particularly in governance, is the responsibility of both the internal operators (directors/managers and operating managers in various providers of communication services) and the various ICT providers on one hand, and the stakeholders (essentially, the regulators, the communication ministries and other monitoring agencies, and the shareholders) on the other.

In attempting to understand the underlying phenomenon of communication and governance in Nigeria, the researcher had to recognise the nature and the workings of ICT and communication services in Nigeria. The possibility of reluctance by communication regulators and administrators who were considered as producers of communication products to provide useful information for the findings was envisaged, which was to be a sizeable challenge. This prompted the researcher to obtain an opened introductory letter and interview consent letter from the university to stakeholders in the communication industry and anyone considered to be versed in ICT use and particularly with the subject of the investigation under consideration. In addition to the introductory letter, a questionnaire was prepared containing a Likert scale format of inquiries and also three open-ended questions that centred on the crux of the findings. Along with the questionnaires were an additional nine semi-structural questions used for the interview section and the focus group discussion.

Efforts at reaching the stakeholders in the communication industries to complete the initial questionnaires (which was intended to sensitise the targeted participants and also a way of gaining access to research participants) met with many bureaucratic challenges, particularly in the government ministries and their parastatals. While some directors completed the questionnaires and also expressed their willingness to participate in the interviews on the proposed dates, other officials did not respond to the request. The researcher, therefore, had to follow up vigorously to ensure the completion of the survey questions before the conduct of the interviews.

It was not an easy task bringing together a diverse conglomerate of professionals because of the difficulty in scheduling an acceptable time for all the participants. However, due to the tenacity of the researcher's follow-ups on the invitations earlier

given to the participants and the cooperation of the some of the managers in the ICT industry who proposed particular interviewees, the interviews were held as planned.

Some of these difficulties may have impacted the scope of the data and its final construction. Indeed, some of the hiccups experienced in data collection and interview scheduling may account for the lack of enthusiasm among scholars to undertake qualitative research on communication issues, particularly in a developing economy like Nigeria. However, the combination of data sources used may have compensated for these shortcomings. The versatility of the data from the survey, interviews, documentary materials and the focus group discussion aided the basis on which the communication theory is established.

## **6.5 Research Ethics**

The following protocol, designed to protect participant anonymity and confidentiality, protect participants from harm, provide for openness and honesty of the scope and purpose of the research as well as participant's rights, guided the conduct of this research.

1. All participants were provided with an information sheet outlining scope and purpose of the research and their rights with regard to participation. They were informed of their rights of inclusion or withdrawal as well as their anonymity in the process. Assurances with regard to informed consent and the right to refuse to participate outright or with regard to certain questions also were provided to all participants.
2. The aims and objectives of the study were explained during the introduction to the interviews. Because the interviews were only semi-structured and semi-standardised, participants were free to share as much or as little as they wished given their degree of expertise. Interviewees were given an opportunity to read and discuss the information sheet, and aid memoire, the interviewee may reveal what they wish, given their expertise. In addition, participants were assured of their right to read any publications resulting from this research.

3. Participants were informed that any written notes, recorded conversation, or other data with regard to interviewees who decided to withdraw from the project would be destroyed as a matter of course.
4. In order to guard against misinterpretation and misrepresentation of responses, Interviewees were informed of their right to request a draft of output on issues they raised specifically and to have a right to respond to the information contained in that draft.
5. Respondents were informed that they are protected by the Nigeria's Freedom of Information (FOI) act of May 28, 2011.
6. The representative sample from the producers and regulators of information and communication products and services were selected based on the authority and technical competence on the impacts of ICT to the key sectors of governance. On the other hand, respondents who are considered as consumers were expected to answer questions generally on the socio-economic benefits of ICT, challenges and possible solutions to addressing the problems. Thus, all respondents answered questions relating solely to their areas of expertise.
7. All the data provided was analysed and presented and will be published only as part of the greater thesis of which it is a part. Every effort was made to ensure an absence of bias and/or an agenda.
8. The interviews were concluded with a debriefing, during which the rights of the interviewees were reiterated. Provision was made for the interviewees to access the resultant open source documents/publication(s) upon request. As the interviews collected qualitative data, there was no formal coded database.
9. All data and recordings taken from the interviews were stored in a safe place. Any shorthand notes were handled as quickly as possible so as to interpret them honestly and in the proper context.
10. Resultant publications will not provide for the identification of interviewees.



## **6.6. Research Reflexivity and Rigour**

Rigour is a term used in qualitative research to refer to the quality or state of being rigorous, valid, credible, severe, believable and thorough (Denzin & Lincoln, 2000a; Denzin & Lincoln, 2000b; Shenton, 2002). Hence, research into the impacts of ICT in development in Nigeria relies on insightful literature to establish rigour by considering the methodological trinity of reliability, validity and generalisation as well as some of the issues relating to establishing rigour in the naturalistic inquiry. A reflection over the literature review stage of the research provided the researcher with an opportunity for a wide knowledge in communication and governance in Nigeria.

Reflexivity, therefore, involves examining different conceptualisations of self when collecting and analysing data. It involves an iterative and interactive dialogue about past experience about present perspectives and future possibilities (Dervin et al., 1976). Hence, reflexivity in this research entailed the researcher being part of the wider economic, social, and political context in ICT and Nigeria. Here, the researcher's attention was drawn to the importance of recognising the social location of the investigation, which was set in Abuja, as well as the emotional responses of the respondents, which helped in shaping the interpretations and the views reflected in the analyses. Upon this, the researcher will draw conclusions that developed from the interviews and focus group discussion session.

In realising the outcome, the researcher should take into account the voice-centered relational method of data analysis (Brown & Gilligan, 1992), which stimulates a critical thinking about different conceptualisations of self. During the investigation, the researcher was stimulated by the respondent views; he remains the self, the learner, manager, parent, and sibling all in one. These roles were consciously reflected on during the data collection process and the analytical stage of the thesis. A doctorate is not simply about the completed thesis, it is about the changes involved in the student; thus, the student becomes an active researcher. The transformation is thus obvious through the reflexivity undertaken during the findings, as critical thinking was required at every stage of the research process and the eventual completion of the thesis.

In other words, the research project is as much about changes to the individual as the impact the research may have on the wider environment. ‘Self’ is brought to the research situation, while at the same time self is developed through the research process. Indeed, types of self can be broken down into three categories: Selves based on the role of the researcher, selves formed through socio-historic existence, and selves self-determined by the situation or research environment (Reinharz, 1997). Each self has been reflected upon regarding relationships with and formation of the research process. According to Guba and Lincoln (2000), “We must question our selves...regarding how...binaries and paradoxes shape not only...identities called forth in the field...but also our interactions with respondents, in who we become to them in the process of becoming to ourselves” (Guba and Lincoln, 2000 p. 183–4).

Furthermore, through reflexivity, researchers can locate themselves in the research; doing so identifies their socio-historical location and makes them aware that they carry a historical perspective of the situation or problem under analysis. Findings are co-created with researcher and researched involved in a saturation of the study with these juxtapositions of selves, situation, and subject used to enhance understanding and enrich data interpretation. As well as observing participants, the researcher was able to observe different selves and was able to build interpretations of selves, will guide the interpretations of the data into the outcome of the research. How the researcher fits and is involved with the research is not only determined but also recognised as part of the elements of the research; personal investment in the research becomes part of the analysis. However, reflexivity has limited validity, as it asks the reader to take interpretations at face value as an authentic attempt to explore selves and be truthful and conscientious about the narrative accounts provided.

A reflexive attitude involves intensive scrutiny regarding how something is known and understood. Reflexivity incorporates an iterative and interactive dialogue about past experience about present perspectives and future possibilities. This brings into perspective the bureaucracy in the Federal ministries visited while gathering the data. A reflexive position is not simply reporting facts or truths but providing interpretations of data and issues raised in the field. “The outcome of reflexive social science is reflexive knowledge: statements that provide insight into the workings of the social world and insight on how that knowledge came into existence” (Hertz, 1997: p. viii).

Reflexivity involves the double hermeneutical idea concerning the interpretation of the interpreting subject; this can be intensified through employing further levels of interpretation, but the core of reflexivity incorporates reflection of interpretation and the self-analysis of the person undertaking interpretation.

Through reflexivity, the researcher has been able to see things with different lenses, through a retrospective of data interpretations. Theory and abstraction are part of reflexivity, as are interaction between theoretical analysis and practical situations, which were a necessary element of the process. Reflexivity is a two-way process of reflection or a primary concept reflecting on other secondary levels; fundamentally, levels of interpretation are reflected in each other. Levels of interpretation include involvement with data regarding observations, focus groups, interviews and interpretation of materials for meanings, through interpretation from theoretical perspectives for an outcome.

## **6.7 Data Analysis and Coding**

The data collected for the research study needs to be interpreted and structured such that it provides new insights into the field that the research is being undertaken (Polkinghorne, 1995).

Data analysis refers to the process of understanding and evaluating the data acquired such that it can be presented in a structured and systematised format explaining the connections between the various data gathered; how it is interrelated and oriented towards addressing the research questions. Evaluation of the data collected is essential for the sake of keeping the integrity of the study and also to show that the research is free of any cognitive bias or subjective opinions. This will include explaining how each resource is critical to realise the broader objectives of the research work and how each of them provides information relevant to the investigation. According to Clark and Creswell (2011), the examination and analysis of the data include the goal of avoiding subjective responses that may affect the process of interpretation and the necessary details and information that are fundamental to the subject of research

Emphasising the significance of concepts as the basis for the construction of analysis and theory, Blumer (1969) stated, “Concepts play a central role. They are significant

elements in the prior scheme ... they are the categories for which data are sought and in which data are grouped; they usually become the chief means for establishing relationships between data, and they are the anchor points in the analysis of findings (Blumer, 1969 p. 26).

It is these concepts according to Strauss and Corbin (1998) that are transformed into open categories, which are a more abstract form of classification.

In the present study thematic analysis will be conducted from the transcripts of the semi-structured interviews carried out. Thematic analysis as is evident from its nomenclature, is a category of analysis where recurring themes are identified across the data that has been acquired earlier and the analysis is organised around the observance, identification of recurring patterns, consistencies or inconsistencies in the data with respect to the themes identified earlier. It is defined as a “process of encoding qualitative information. The encoding requires an explicit code. This may be a list of themes, a complex model with themes, indicators and qualifications that are casually related, or something in between these two forms” (Boyatzis, 2009, p. 4). Thematic analysis based on phenomenological hermeneutics is used in exploring the insiders’ views in the interviews conducted for the study.

These themes are identified on the basis of the research questions that are central to the study and to the larger phenomenon or area that is being researched. The open coding in this research commenced with the transcription and review of the first series of interviews. The audio recording and the interview notes from each interview were transcribed verbatim into a written format immediately after each interview for easier examination and analysis using the line-by-line, sentence-by-sentence approach to uncover meanings, ideas or concepts (Strauss & Corbin, 1998). This was made possible by the time delay between interviews. The process also helped to guide the direction of the next interview, which is an essential part of Grounded Theory (GT) application (Glaser & Strauss, 1967); moreover, the process was undertaken in its entirety rather than selectively (Strauss & Corbin, 1998). This also helped to ensure the validity of the research outcome (Strauss & Corbin, 1998).

Along with thoroughly reading the transcribed interviews line by line and sentence-by-sentence, theoretical memos were used to increase the theoretical sensitivity of the researcher. In GT, conceptual integration and articulation are enhanced through an

extensive and systematic process of memoing during the data analysis process. Memos are “specialised types of written records of analysis” (Corbin and Strauss, 2008, p.117). They are the theoretical notes about the data and conceptual connections between categories that are written up during the coding and analysis process, as the emergent ideation of 168 substantive and theoretical categories (Strauss & Corbin, 1998), which help the researcher to obtain analytical insights into the data. Patton (2002) states that “recording and tracking analytical insights that occur during data collection are part of field work and the beginning of qualitative analysis” (p.436), adding that “repressing analytical insights may mean losing them forever, for there is no guarantee they’ll return” (p.406).

## **6.8 Research procedure**

**The research study involved the following steps, in the sequence listed below-**

- Close-ended questionnaires were prepared on the basis of existing relevant research material and the available literature on the subject and through the analysis of relevant secondary data collected through the communication parastatals, including the regulatory agencies of the industry and other associated reports relating to ICT in Nigeria
- Primary data collection through interviews with officials working in ICT and governance, focus group discussion and through the distribution of close-ended questionnaires.
- The responses to the questionnaires and the surveys conducted were analysed using SPSS software and using descriptive statistics.
- Thematic and data analysis of the interview transcripts was undertaken, open coding of the interview transcripts was undertaken and further manual analysis was done.
- The results gained from the quantitative and qualitative analysis were integrated in order to draw relevant results, findings, conclusions, and offer recommendations for future research.

## **6. 9 Summary**

This chapter has outlined the selection of participants used for the data collection in the research project. It has also discussed the four main data collection methods used: survey, semi-structured interviews, focus group discussion, and secondary sources in the form of relevant documentary materials. In addition, it described how the researcher gained access to the data and the challenges encountered in the process as well as the ethics and research rigour procedures.

The collection of data provided the basis for the development of a research model which will be described in detail in Chapter 10. It should be noted that the data collection and analysis were carried out simultaneously; Part III deals with aspects of the data analysis in detail.

## **PART III: CHAPTERS SEVEN, EIGHT, NINE: DATA ANALYSES**

### **CHAPTER SEVEN - QUANTITATIVE ANALYSIS OF THE SURVEY WITH ANALYSIS OF SURVEY RESULTS AND THE LIKERT SCALE QUESTIONNAIRE**

#### **7.1 Introduction**

This chapter deals with the analysis of the survey questionnaire results collected from selected professionals with varied backgrounds as users or experts on communication apparatuses. Those selected to receive questionnaires were members of the public and individuals from professional and stakeholder groups in the communication industry. These participants were knowledgeable on ICT use and also on its importance to development in Nigeria. The responses from the survey questionnaires were analysed with tables for an overview of the benefits of ICT on development and the challenges confronting the communication industry and formed the basis for development of questions for the semi-structured interviews and focus group sessions. A total of 100 questionnaires were distributed, and 88 individuals provided responses to the questions. Those responses are detailed in the tables and in Section 7.1.

#### **7.2 Summary of Questionnaire Findings**

**TABLE 7.1 Frequency of respondents' usage of internet-enabled mobile device for social networks**

DEGREE OF USAGE	NUMBER OF RESPONDENTS	PERCENTAGE
ALWAYS	44	65.7
FREQUENTLY	14	20.9
OCCASIONALLY	8	11.9
RARELY	0	0.0
NEVER	1	1.5
TOTAL	67	100

Table 7.1 shows the number of respondents and the degree of usage of their Internet-enabled devices for social networks. A total of 67 respondents out of 88 recipients responded.

The results show that about 86% of the respondents to this question use ICT either always or frequently for social networking, while 12% use it occasionally, and a very low percentage (1.5%) never use ICT for social networking.

**Table 7.2 Frequency of respondents' usage of Internet-enabled mobile devices for reading**

DEGREE OF USAGE	NUMBER OF RESPONDENTS	PERCENTAGE OF RESPONDENTS
ALWAYS	40	50
FREQUENTLY	22	27.5
OCCASIONALLY	13	16.3
RARELY	4	5
NEVER	1	1.3
TOTAL	80	100

An analysis of the degree of usage of ICT for reading news or e-Books, an area relating to socioeconomic development in Nigeria, reveals that 50% of respondents to this question always make use of ICT, and approximately 28% frequently make use of ICT for that purpose as well. Occasionally 16% of the respondents use ICT for reading contents online while only 6% rarely or never use ICT for online reading.

**Table 7.3 Frequency of respondents' usage of ICT for getting news alerts**

DEGREE OF USAGE	NUMBER OF RESPONDENTS	PERCENTAGE OF RESPONDENTS
ALWAYS	50	61.7
FREQUENTLY	20	24.7
OCCASIONALLY	4	4.9
RARELY	5	6.2
NEVER	2	2.5
TOTAL	81	100



Table 7.3 reveals the frequency of question respondents' usage of ICT in getting news alerts. A clear majority (86%) of respondents use ICT always or frequently in getting news alerts, while 5% of the respondents occasionally use it. About 8% of the respondents rarely or never use ICT for getting news alerts.

**Table 7. 4 Frequency of respondents' usage of ICT for accessing email**

DEGREE OF USAGE	NUMBER OF RESPONDENTS	PERCENTAGE OF RESPONDENTS
ALWAYS	58	69.9
FREQUENTLY	15	18.1
OCCASIONAL LY	7	8.4
RARELY	3	3.6
NEVER	0	0.0
TOTAL	83	100

The level of ICT usage for electronic mails has been increasing over the years, as shown in the question respondents' answers to the degree of usage. The level of usage in Nigeria could be attributed to its increasing affordability and improved speed. An evaluation of ICT usage for electronic mails clearly show that close to 90% of question respondents always or frequently make use of ICT for electronic mails. Roughly 8% occasionally use it, while a small percentage of 4% of the respondents do not use ICT for electronic mails.

**Table 7.5 Frequency of respondents' usage of ICT for texting messages**

DEGREE OF USAGE	NUMBER OF RESPONDENTS	PERCENTAGE OF RESPONDENTS
ALWAYS	71	82.6
FREQUENTLY	9	10.5
OCCASIONALLY	6	7.0
RARELY	0	0.0
NEVER	0	0.0
TOTAL	86	100

Texting messages, otherwise known as short messaging service or SMS, is another common means of communication because of its simplicity and easy accessibility for transmitting messages by users. Table 7.5 shows that all the

question respondents do text messages. Analysis of the respondents shows that 93% of them always or frequently engage in texting messages, while 7% occasionally do.

**Table 7.6 Frequency of respondents' usage of ICT in searching for information**

DEGREE OF USAGE	NUMBER OF RESPONDENTS	PERCENTAGE OF RESPONDENTS
ALWAYS	51	61.4
FREQUENTLY	23	27.7
OCCASIONALLY	7	8.4
RARELY	1	1.2
NEVER	1	1.2
TOTAL	83	100

Analysis of question on respondents' use of ICT in search for information revealed that 89% of the respondents always or frequently engage in search for different types of information using ICT. While 8% of respondents occasionally do so, only 2% rarely use ICT for searching information.

**Table 7.7 Frequency of respondents' usage of ICT in getting directions**

DEGREE OF USAGE	NUMBER OF RESPONDENTS	PERCENTAGE OF RESPONDENTS
ALWAYS	8	10.4
FREQUENTLY	9	11.7
OCCASIONALLY	34	44.2
RARELY	20	26
NEVER	6	7.8
TOTAL	77	100

A total of 77 respondents reacted to the question posed on usage of ICT for directions. Of these respondents, 22% always or frequently seek directions with ICT device, while 44% of the respondents occasionally use it, and 34% of the respondents rarely or never make use of ICT device in searching for direction..

**Table 7.8 Frequency of respondents' usage of ICT in uploading content**

DEGREE OF USAGE	NUMBER OF RESPONDENTS	PERCENTAGE OF RESPONDENTS
ALWAYS	13	16.9
FREQUENTLY	24	31.2
OCCASIONAL LY	29	37.7
RARELY	8	10.4
NEVER	3	3.9
TOTAL	77	100

Table 7.8 shows the level of usage of ICT in the area of uploading contents. Thirty-seven out of the 77 respondents to the question, representing about 48%, engage in uploading content online either always or frequently, while 38% only do so occasionally. About 14% of the respondents rarely or never upload content using any form of ICT. Based on this analysis, it can be deduced that uploading content using ICT is done occasionally.

**Table 7.9 Frequency of respondents' usage of ICT in game playing**

DEGREE OF USAGE	NUMBER OF RESPONDENTS	PERCENTAGE OF RESPONDENTS
ALWAYS	11	14.9
FREQUENTLY	12	16.2
OCCASIONAL LY	18	24.3
RARELY	24	32.4
NEVER	9	12.2
TOTAL	74	100

Using ICT for games is not a common activity in Nigeria, as revealed in this survey. The evaluation of the survey showed that 31% of the respondents to this question always or frequently play games using ICT platforms, with about 24% occasionally playing games using ICT and 44% rarely or never using ICT for this purpose.

**Table 7.10 Frequency of respondents' usage of ICT for listening to music or watching video**

DEGREE OF USAGE	NUMBER OF RESPONDENTS	PERCENTAGE OF RESPONDENTS
ALWAYS	21	25.6
FREQUENTLY	14	17.1

OCCASIONAL LY	38	46.3
RARELY	7	8.5
NEVER	2	2.4
TOTAL	82	100

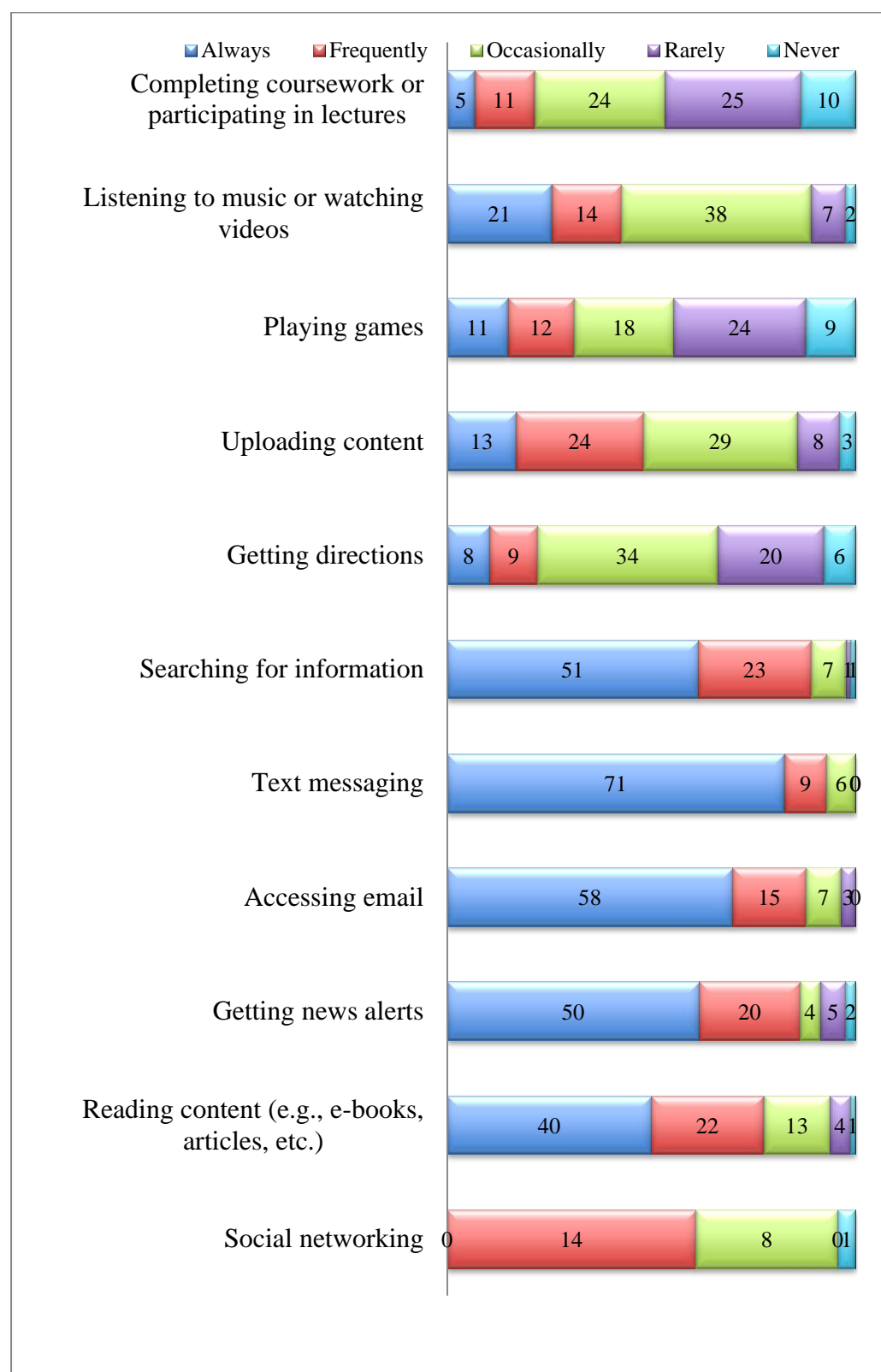
. In the survey conducted, 43% of the respondents always or frequently use ICT for watching video and listening to music, and 46% use it occasionally, while about 11% rarely or never make use of ICT for watching video or listening to music.

**Table 7.11 Frequency of respondents' usage of ICT for participation in courseware or lectures**

DEGREE OF USAGE	NUMBER OF RESPONDENTS	PERCENTAGE OF RESPONDENTS
ALWAYS	5	6.7
FREQUENTLY	11	14.7
OCCASIONAL LY	24	32
RARELY	25	33.3
NEVER	10	13.3
TOTAL	75	100

An evaluation of the question respondents' usage of ICT in the area of education such as participating in lectures show that only 21% use ICT always or frequently in this regard, and 32% use it occasionally, while about 47% rarely or never use ICT in the area of completing coursework or participating in lectures.

**Chart 7.1 Summary: Frequency of usage of internet-enabled mobile device for different activities in Nigeria as a proportion of responses**



As shown in the previous analysis and summarised visually in Chart 7.1, usage of ICT among the questionnaire respondents for various activities varies according to the type of activity.

The analysis on Chart 7.1 also shows that the use of ICT has been harnessed in Nigeria in the areas of social networking, reading articles, getting news alerts, and searching for information, but usage in the areas of getting directions, completing coursework, and playing games is still low.

### 7.3 Likert Scale Responses

Survey participants also were asked to indicate responses on a 4-point Likert Scale to indicate their degree of agreement with 19 statements on the social and economic benefits of ICT usage in Nigeria. An overview of their responses is shown in Table 7.13.

Table 7.13 Social and Economic Benefits of ICT usage in Nigeria: Likert Scale responses

S/N0	Questions	Strongly agree	Agree	Disagree	Strongly disagree
1	ICT has made communication flow easy and faster since the year 2000 in Nigeria.	69 (79%)	18 (21%)	0	0
2	ICT adoption facilitates timely information processing and distribution.	57 (66%)	29 (34%)	0	0
3	Development of ICT facilities has resulted in timely preparation and distribution of	31 (36%)	43 (49%)	13 (15%)	0

	policy documents.				
4	ICT usage has positive and significant impacts on the speed of operations and service delivery, productivity, and the profit level of companies in Nigeria.	50 (58%)	34 (40%)	0	0
5	ICT operation in Nigeria in the last 15 years has encouraged a general boom in business.	43 (51%)	36 (42%)	6 (7%)	0
6	ICT has made financial transactions easier with financial institutions and helps in payrolling processes in both the private and public sectors.	62 (72%)	23 (27%)	0	1 (1%)
7	ICT is a useful medical apparatus for diagnosis and other health needs.	30 (36%)	45 (53%)	9 (11%)	0
8	Agriculture has benefited a great deal from ICT in Nigeria.	13 (16%)	31 (38%)	34 (41%)	4 (5%)
9	ICT has helped to improve weather reports, hence helping to save and secure life and property.	29 (34%)	43 (50%)	13 (15%)	1 (1%)
10	In the last 17 years, ICT has contributed greatly to the infrastructural development of	10 (12%)	41 (48%)	29 (34%)	5 (6%)

	Nigeria.				
11	ICT has made learning and education at all levels easier and better.	34 (40%)	41 (48%)	9 (11%)	1 (1%)
12	ICT has improved library services in Nigeria.	23 (28%)	36 (44%)	15 (19%)	7 (9%)
13	ICT is a useful training tool for courses, workshops, and conferences in matters relating to government.	35 (41%)	44 (51%)	6 (7%)	1 (1%)
14	Despite the adoption of ICT in government activities (the daily running of its business), bureaucracy has not been eradicated.	35 (41%)	44 (51%)	6 (7%)	1 (1%)
15	Bureaucracy in administering communication policies encouraged bad practices and has slowed down the full benefits of ICT in official engagements.	27 (33%)	38 (47%)	14 (17%)	2 (3%)
16	The Freedom of Information Bill in Nigeria will further promote access and flow of information and communication.	34 (40%)	43 (51%)	6 (7%)	2 (2%)



17	The communication regulatory bodies in Nigeria, such as the Nigeria Communication Commission (NCC), have created a suitable environment for competition among operators in the industry and have ensured quality and efficient telecommunications service throughout the country.	22 (27%)	36 (43%)	22 (27%)	3 (3%)
18	The high cost of ICT facilities hinders communication benefits.	35 (41%)	37 (43%)	12 (14%)	2 (2)
19	Culture and tradition/religion hinder communication in parts of Nigeria.	12 (15%)	27 (34%)	33 (42%)	7 (9%)

According to the analysis, ICT has improved the communication, health, education. and banking sectors. But in the area of agriculture, respondents believe that it has not fully met the required improvement. 46% of the respondents disagree or strongly disagree that agriculture has benefited a great deal from ICT in Nigeria.

This analysis reveals overall, however, that respondents believe that ICT has made communication faster and easier in Nigeria, judging by the percentage in support of this assertion that 79% and 21% strongly agree and agree respectively.

All the respondents also believe that the use of ICT has facilitated fast processing of information dissemination in Nigeria, which is key in the economic development of any nation. On this dimension, 66% and 34% of the respondents strongly agree and agree respectively.

In terms of timely preparation and distribution of policy documents, 85% of the respondents believe ICT has made significant and positive impacts, while 15% disagree with this assertion.

The survey also shows that respondents believe that ICT has led to a significant improvement in the operations and service deliveries of companies in Nigeria. 98% of the respondents totally agreed with this statement.

About 93% respondents claimed that ICT has encouraged a boom in business generally in Nigeria, while the remaining 7% believe this is not true.

The use of ICT for financial transactions in banks and other financial institutions has made transactions fast and flexible in Nigeria. 99% of the respondents believed this has helped both private and public sectors.

In the health sector, 89% of the responses received claim that ICT has made impacts in the areas of diagnosis and other health needs.

On the aspect of weather reporting, 84% of the respondents accept that ICT has made impacts in weather reporting there by saving lives and properties of residents in Nigeria.

Looking at infrastructural development, 60% of the respondents are of the opinion that ICT has contributed greatly, but 40% disagreed. Most respondents do believe that ICT makes learning and education at all levels easier and better. In fact, 88% of the respondents totally agree with this claim.

In the government arena, 92% of the respondents believed that the adoption of ICT in government parastatals (independent agencies operating under the auspices of various ministries) has not eradicated bureaucracy from its systems. However, 91% of the respondents believe that the Freedom of Information Bill in Nigeria will further promote access and flow of information and communication in Nigeria.

About 70% of the respondents are of the opinion that the communications regulatory bodies in Nigeria, such as the Nigeria Communication Commission (NCC), have created an enabling environment for competition among operators in the industry and ensure quality service delivery to their customers.

Many of the respondents, about 84%, claim that the high cost of ICT facilities hinders the benefits of communication in Nigeria.

Respondents are more divided on whether culture or religion hinder communication in parts of Nigeria. While 49% believe culture/religion hinders communication in Nigeria, 51% disagree.

Table 7.14 Problems of using applications and/ or Internet on communication devices in Nigeria

S/No.	PARTICULARS	FREQUENCY	PERCENTAGE
1.	Malware, spyware, and Internet fraud	12	13%
2	Poor network	62	65%
3	High cost	4	4%
4	Poor power supply	8	8%
5	Addiction to social network	2	2%
6	Low device memory	2	2%
7	Low device capacity	5	5%
TOTAL – SEPARATE RESPONSES		95	100%

In identifying the problems faced in using applications and/ or the Internet on communication devices in Nigeria, an open-ended question was included in the questionnaire to learn about respondents' problems in using applications on their devices. This question produced many individual responses; 78 out of the 88

respondents, or approximately 89%, responded to the question. Their responses and the frequency with which they were mentioned appear in Table 7.14. All the responses fell under seven headings: problems of malware, spyware, and Internet fraud; poor network; high cost of services; poor power supply; addiction to social networking; low device memory, and low device capacity.

The vast majority of the respondents believe that poor network service is the major problem in using applications on their devices in Nigeria (this accounted for 65% of the responses). The second most frequently-cited problem is malware, spyware, and internet fraud, with 13% of all responses. A smaller percentage of responses (8%) are comments that power supply also affects using applications or the Internet on their communication devices.

Table 7.15 Problems/challenges facing the communication industry in Nigeria

S/No.	PARTICULARS	FREQUENCY	PERCENTAGE
1.	High tariff (exploitation by operators)	17	10%
2.	Poor coverage in rural areas	10	6%
3	Weak regulations	8	5%
4.	Corruption	5	3%
5.	Vandalization of ICT equipment	7	4%
6.	Poor power supply	20	12%
7	Low competition among operators	4	2%
8.	Policy implementation problems	10	6%
9.	Poor network	21	13%
10.	Lack of technical know-how	6	4%
11.	Bureaucracy	6	4%

12	Hacking	8	5%
13.	High cost of infrastructure	21	13%
14.	Lack of political will	9	5%
15.	Poor training and capacity building	8	5%
16.	High tax	2	1%
17	Funding	4	2%
TOTAL – ALL RESPONSES		166	100%

An analysis of the problems facing the communication industry was also conducted. An open-ended question was posed to the respondents, which generated responses on 76 out of the 88 respondents' questionnaires, representing 86% of total respondents. Feedback from this question was grouped into seventeen headings as shown in Table 7.15. Respondents believe that the high cost of infrastructure (13% of responses offered), a poor network (13%), poor power supply (12%), and high tariff (10%) are the greatest problems facing the communication industry in Nigeria, as seen by the survey respondents. Poor coverage in rural areas and poor policy implementation received 6% each of offered responses. Weak regulations, lack of political will, hacking, and poor training and capacity building received 5% each. Vandalisation of ICT equipment, lack of technical know-how, and bureaucracy received 4% of responses, with corruption receiving 3%. Low competition among operators and funding problems received 2%, while high taxes contributed 1% of offered responses.

Table 7.16 Proffered solutions to the identified problems of communication in Nigeria

S/No.	PARTICULAR	FREQUENCY	PERCENTAGE
1.	Reduce cost of services	12	13%
2.	Improve network services	10	11%
3.	Build adequate capacity	8	9%
4.	Government to create enabling environment	8	9%
5.	Reduce taxes	5	5%
6.	Improve power supply	20	22%
7.	Fight corruption	6	6%
8.	Implement policies	4	4%
9.	Expand services to rural areas	4	4%
10	Develop efficient regulations	11	12%
11	Create room for competition	3	3%
12	Create platform to check scams	2	2%
TOTAL		93	100%

Seventy out of the 88 respondents offered solutions to the problems of communication faced in Nigeria. The number of respondents that reacted to this question on solution represented 80% of all respondents

Table 7.16 presents the suggested solutions, grouped into 12 areas: reduce cost of services, improve network services, build adequate capacity, government to create enabling environment, reduce taxes, improve power supply, fight

corruption, implement policies, expand services to rural areas, develop efficient regulations, create room for competition, and create a platform to check scams.

According to the responses received, the key solution to improved communication through ICT services is the improvement of the power supply (22%). Respondents believe that power is critical; 20% of the offered responses point to the issue of inadequate and irregular power supply. The solution with the second-highest number of mentions (13%) is a reduction in cost of service. Efficient regulation also was mentioned as a manner to bring about effective ICT in Nigeria (12%).

Reducing the high cost of services by service providers (13%), efficient regulations (12%), adequate capacity building (9%), and creation of an enabling environment for the communication industry (9%) are other solutions offered by the respondents, as were the need to fight corruption (6%), tax reduction (5%), policy implementation and expansion of services to rural areas recorded (4% each,) creating room for competition (3%) and creating a platform to check scam and other online bad practices (2%).

## **CHAPTER EIGHT: HERMENEUTICS AND DIALECTICS ANALYSIS**

### **8.1 Introduction**

The previous chapter discussed the analysis of this study's quantitative data which, as mentioned previously, helped in the conduct and of the interviews and focus group session. A detailed discussion of the analysis of interview/focus group data will appear in Chapter 9. Before turning to that analysis, however, this chapter will further discuss hermeneutics methodology as it applies to the development of the theoretical model in communication and governance in Nigeria, stemming from the thesis data collected mainly from semi-structured interviews, focus group discussions, and the documentary material sourced from communication agencies and the library.

One can argue that any attempt to illustrate the impacts and behaviour of ICT in Nigeria since would require a mutual synthesis of interpretation and understanding between the researcher and the researched. For such a mutual evaluation to take place, one has to look beyond historical data. That means that the researcher must articulate the detailed background before the empirical analysis of the data collected. It is important, therefore, to recognise that the past is essential for a holistic appraisal which is theoretically impossible but feasible in hermeneutics.

### **8.2 Dialectics process and hermeneutics**

These are forms of traditional cultural discourse that are also counter-cultural. Hermeneutics seeks mutual understanding, especially across different cultural horizons; this reflects significantly on the impacts of culture on communication in parts of Nigeria. Thus, it will reflect on the changes and challenges in ICT and the usage and services provided by the players: aspects which are vivid and critical in dialectics hermeneutics.

A thematic analysis based on phenomenological hermeneutics is used in exploring the insiders' views of the phenomenon. The analysis thus enables the researcher to "increase accuracy or sensitivity in accepting and interpreting the



observations about people, events, situations and organisations” (Boyatzis,1998, p.5).

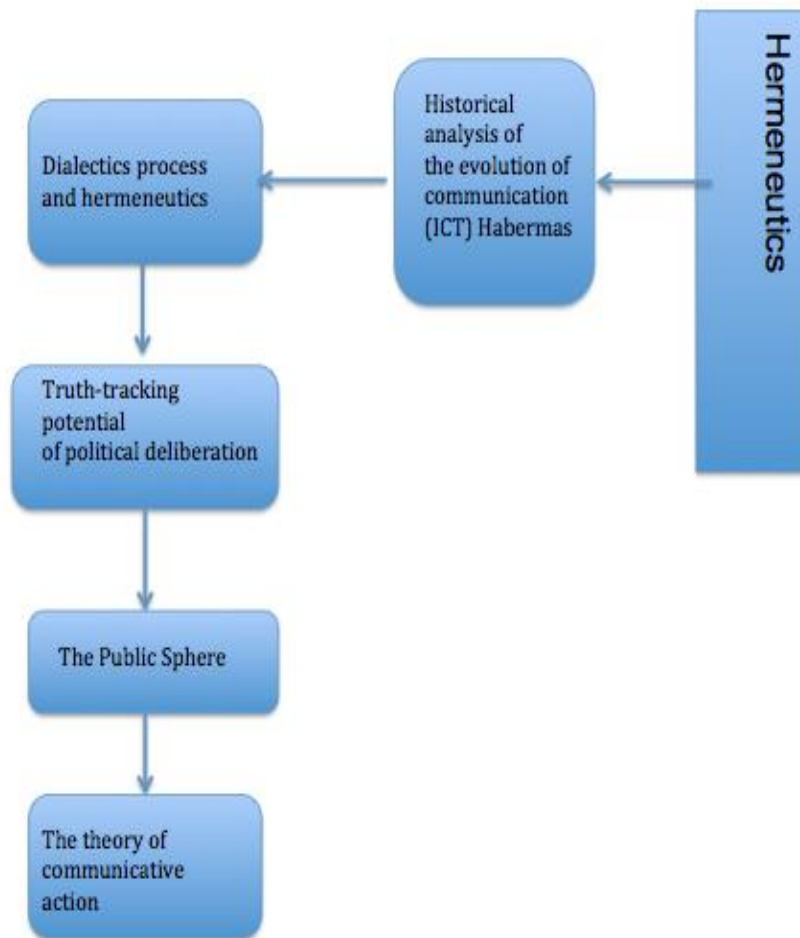


Figure 8.1 Habermas dialectics process and hermeneutics analysis of communication evolution. (Source- author)

Hermeneutics involves a “continuous dialectic tacking between the most local of local detail and the most global of global structure in such a way as to bring both into view simultaneously” (Geertz, 1979, p. 239). In this context, therefore, the fusion of the most local and the most global structure transcends into a comprehensive interpretation of the communication impacts in different cultural horizons and different cultural periods that emerged into a simultaneous historical lineage. That in mind prompted the question on the cultural and traditional vagaries in communication in parts of Nigeria.

Thus, hermeneutics is relevant to the social, cultural, and economic development and concerns the problem of analysis; It has, therefore, been essential to various customs of scripture scholarship, legal studies, rhetoric, and of literary criticism (Kidder, 1997). In textual interpretation, "...the anticipation of meaning in which the whole is envisaged becomes explicit understanding in that the parts, that are determined by the whole, themselves learn the whole" (Gadamer, 1985, p. 259). It is a "methodology, which focuses on the historical and social context surrounding an action when interpreting a text and assumes a relationship of experience and the underlying dynamics or structures" (Hussey & Hussey, 1997, p. 77). The hermeneutics methodology augments the historical realism ontology of the critical theory as in the latter's paradigm, virtual reality is shaped by social, political, cultural, and economic, ethnic, and gender values, crystallised over time (Guba & Lincoln, 1994).

It can be argued that ICT was virtual reality implanted by the creation of the 5th century BCE pigeons post and the first experimental acoustic (mechanical) telephone by Robert Hooke, who is credited with the production of this telephone in 1672. Hooke found that sound could be transmitted above wire or string into an imputed earpiece or mouthpiece. It is not clear that he was aware at the time of the consequences of this discovery, as his notes point toward his desire to use this device to make music. This, indeed, was the seed of communication and ICT path-path dependency. One can again argue that ICT was shaped by social, political, cultural, economic, ethnic, and gender values formed over time, which reflect the dominance and persistence of the initial ideas and policies (historical institutionalism). As such, the analysis of the ICT's path-dependency mapped out its values, use and policies over time. The ICT's path dependency set the ground for the hermeneutical analysis.

### **8.3 A dialectical reflection on global communication evolution**

Dialectics reflection in the evolution of global communication requires an exploration of the developmental timeline of communications tools, as shown in the following table.

**Table 8.2. Technology of communication timeline, 1971 to 2010.**

Year	Communication Tool	Year	Communication Tool
Thousands of years BCC	Speech	1895	Silent movies
Thousands of years BCC	Cave paintings, petraglyphs	1922	Radio broadcasts
3300 BCC	Pictographic writing (hieroglyphics)	1927	Sound movies
1800 BCC	Cuneiform writing	1930	
1500 BCC	Alphabetic writing	1935	Colour movies
450 BCC	Greek optical telegraph	1939	Packet paperback books
50 BCC	Motion picture theorized	1940	Black-and-white TV broadcasts
CC 800	Chinese print whole page from wood blocks	1945	Modern computers
1450	Printing press	1947	Long-playing (LP) records
1835	Photography	1954	Transistor radios
1844	Telegraph	1960	Color TV broadcasts, photocopiers
1855	First transatlantic cable	1962	Satellite communications cassette tapes
1876	Telephone, phonograph	1965	Local cable TV
1894	Wireless telegraph	1969	Computer networking

Year	Communication Tool	Year	Communication Tool
1971	First email	1993	Videophones, digital radio
1972	BETA VCRs	1994	Online services, personal communications services
1973	Cellular services	1995	IRC/mIRC

1973	Fax machines	1996	High definition TV broadcast, vast expansion of Internet
1975	First personal computer	1997	DVD players
1976	VHS VCRs	1997	First Wifi protocol released
1977	Apple II home computers	1999	High speed Internet
1978	Laser disks	2001	DVD burners widely available
1979	Personal stereos (Walkman)	2002	MP3 data compression
1979	Inmarsat (ship-to-shore)	2002	Friendster
1980	Home laser printers, portable video recorders	2003	Voice over Internet Protocol (VOIP)
1982	SMTP email	2003	PC tablets with handwriting to text, video email, personal video players
1983	Internet	2003	LinkedIn
1983	CDs, fiber optics, camcorders, cellular phones	2003	iTunes
1984	Stereo TV	2004	Facebook
1988	Mobile satellite handheld	2005	Holographic 3D projection
1988	Digital audiotaps	2006	MySpace, YouTube, Touch Light interface
1990	High definition TV, digital photography, instant message	2006	Twitter
1991	CD-ROM, CD-I	2007	MacSpeak
1992	MiniDiscs	2010	iPad

Kurweil Imagines years future

08 Nov 2017-11-09Downloaded;

[https://en.wikipedia.org/wiki/Timeline\\_of\\_communication\\_technology](https://en.wikipedia.org/wiki/Timeline_of_communication_technology) **Eagle** ≡ Faculty ≡ Gary Gillespie ≡ **Technology of Communication Timeline**

© 2016 Northwest University Information Technology Office

ICT in Nigeria is managed under three main policy documents: the National Mass Communication Policy of 1990, the National Telecommunications Policy of 2000, and the National Policy for Information Technology of 2000. These documents, as well as other ICT policies and government pronouncements, were consolidated as National ICT Policy, released in January 2012 by the Ministry of Communication Technology (MCT). This National ICT Policy articulates the nation's ICT objective as a "knowledge-based globally competitive society" by 2020 (Ministerial Committee on ICT Policy Harmonization, 2012, p.12).

It is the past that becomes the present and the present that guides one to future knowledge in ICT. In Foucault's (1983) view, there are four inter-area types of history, namely history of science, history of knowledge, history of rationality, and history of reason. It is the question of what is the history of reason and of rational forms that transcends from Max Weber to Habermas and the critical theory based on the meditation on norms and values.

Foucault argued that the folly at work in "every critique of reason or as every critical enquiry into the history of rationality operates as though a rational critique of rationality were impossible, or as though a rational history of all the ramifications and all the bifurcations, a contingent history of reason, were impossible" (Foucault, 1983, p27). For Foucault, it was a question of isolating the form of rationality identified as predominant and founded by the status of only one object to show that it is only one possible mode among others. Foucault differed by critical theory's bifurcation of reason, the dialectical continuity of reason, and of abuse that completely changed it at a certain stage and then became a question of rectifying it.

Habermas, in turn, contrasted his theory of rationality with that of his predecessors, namely Marx, Weber, Ardon, and Horkheimer. He rejected what he took to be an equation between rationality and Max Weber's "instrumentality rationality" that refers to the rationality that governs the choice of means to given-often to material-ends (Schambler, 2001). He contrasted this with "communicative rationality" which refers "to the activity of pondering in our background assumptions upon the world" and "bringing our primary standards

close, for questioning and negotiated, which instrument rationality takes these 'background assumptions' for granted” He emphasised the natures of either “cultural revolution,” which is not governed by instrumental reason alone, or economic and administrative systems that are too complex to be seen merely as a by-product (Schambler, 2001). Habermas (2001) recognised the “birth” of the theory of public opinion back to historical roots in the common public sphere rising in the eighteenth-century Europe. According to Habermas, this was the era in which the literate bourgeois began to assume a political role in the evaluation of contemporary issues, and especially, of state policy. Habermas cited the mushrooming of clubs, coffee houses, and salons as evidence of the emergence of the concept of public opinion, for the bourgeois sought to urgently familiarise themselves with state policy making and to influence it wherever possible. ICT today provides the platform for this discourse and negotiation. This allows social and political convergence on the Internet, which is open platform for meetings, to interact and to dialogue.

#### **8.4 Truth-tracking potential of political deliberation**

The truth-tracking potential of political deliberation in Habermas’ *Theory of Communicative Action* pays much credence to Habermas’ conscious language activity, which allows a peaceful reconciliation and answers to all questions asked by humanity, resolved through debate. Such atmosphere is made possible through ICT platforms, as evident in political communication as a mechanism for enhancement of cooperative learning and collective problem solving.

#### **8.5 The Public Sphere**

Habermas, in *The Structural Transformation of the Public Sphere*, argues that England in the 1700's saw the emergence of a new public sphere...which negotiates between society and state, in which the public constitutes itself as the conveyor of public opinion. The greatest addition to the development of the public sphere was the evolution of its institutional base, the organisational formations that allowed the “webs of social development” to exist. It links the increase of urban culture (provincial, metropolitan, imperial) as the current arena of open life (theatres, opera houses, converging rooms, coffeehouses) to a modern infrastructure for social communication (the press; publishing ventures;

circulating libraries; improved transportation, carriages, and canals; an increasing reading public; and centers of socialisation similar to coffeehouses and taverns), and the new philanthropic movement of voluntary association. The prime example is the coffeehouse, Habermas stresses how “the conversation of these little circles branched out into affairs of state administration and politics” (Calhoun, 1992, p. 12). In these circles or webs, there were several crucial features, Habermas argues: “a kind of social intercourse that, far from presupposing equality of status, disregarded status altogether” (Habermas, 1995, p. 37).

There was also a general trust in discursivity and reason. The emerging public web was established as inclusive by principle: anyone with access to cultural technology such as novels, journals, and plays had the potential to claim the attention of the “culture-debating public.” “However exclusive the public might be in any given instance, it could never close itself off entirely and become consolidated as a clique; for it always understood and found itself immersed within a more inclusive public of private people, persons who - insofar as they were propertied and educated - as readers, listeners, and spectators could avail themselves via the market of the objects that were subject to discussion” (Calhoun, 1992, p. 13).

Habermas (2001), however, affirmed that this bourgeoisie model, which he referred to the “public use of reason,” was always compromised in the sense that it disregarded the constraints of class and gender. Habermas noted that a trend towards “Feudalisation of the public sphere emerged as commercialisation improved. This principle of the critical publicity became progressively more diluted with the extension of the state's position and the increase in the major private interests and the Mass Media...The political landscape had also evolved with the party activists gaining cleavage at the expense of the passive electorate” (Habermas, 2001, p. 4).

Thus Habermas held that the public view was no longer a complete source of critical judgment, as the mass media had established itself as the only platform of thinking. Consequently, the public opinion became a social-psychological variable to be manipulated.

It is within the realms of hermeneutics understanding that human action must begin from the notion that people are dynamic entities whose behaviour reflects their complexity (Kidder, 1997). Habermas' conventional public sphere can also be traced back to the 5th-century BCE pigeons post and the 1672 mechanical telephone, this thus leading to new technological inventions that allow political participation and deliberation. Governments have introduced several ICT devices to facilitate this participation. In recent years, social media also have been introduced. However, the introduction of previous communication technologies, such as radio, TV and the early Internet, has shown that while new technologies do lead to change, this process is a complex one, demanding a holistic, socio-technical approach to realise the goal of a public sphere and political participation.

Thus the history and analysis of the ICT behaviour and changes can be perceived in Habermasian terms: the struggle of “public use of reason” among the bourgeois private individuals (e.g., ICT stakeholders) and the State. It was a struggle for emancipation fuelled by the ever-growing commercialisation.

For Habermas (1996), civil society exists at the interface of the private and public spheres of the lifeworld. It consists of those “more-or-less spontaneously emergent associations, organisations and movements that, attuned to how societal problems resonate in the private life spheres, distill and transmit such reactions in amplified form to the public sphere” As noted previously, the transfer from government to private ownership that had begun with the sale of shares in British Telecommunications in 1984 and Nippon Telephone and Telegraph in 1985 spread to over 80 developing countries by 2003 (Megginson & Netter, 2001). The transition from monopoly to competition witnessed an equally dramatic impact. This was what Habermas (1996) identified as the core of the civil society as comprising a network of associations that institutionalised.

At the time that Habermas was developing his theory, “the media of the public sphere were newspapers and magazines, radio and television” (Habermas, 1989a, p. 73). Today, this list would include the Internet. Past introductions of new communication technologies in Nigeria have shown that new technology alone rarely leads to fundamental societal changes. After an initial outburst of radical



optimism, followed by a similar pessimism, the new technology settles as part of the established order, introducing new ways of thinking and communicating. What was thought to be a revolution turns out to be part of evolution. While the technology opens up some possibilities, such as communicating across vast distances, the fundamental needs of the users remain the same.

Habermas (1989a) was careful to distinguish between “mere opinions (cultural assumptions, normative attitudes, collective prejudices and values) that seem to persist unchanged in their natural form as a kind of sediment of history” (p. 74) and public opinion which “can by definition come into existence only when a reasoning public is supposed (p. 74). These aspects of Habermas's theory have triggered huge debate. The idea of a “reasoning public” implies that some publics are less reasonable than others and that judgements can and need to be made about where reasoning starts and ends to accord legitimacy to public opinion. Indeed, Habermas (1989a) defines public opinion as the tasks of criticism and control which a public body of citizens undertakes informally – and, in periodic elections, the problem solving discourses on questions of general interest:

These discursive designs have an egalitarian, open form of organisation that mirrors essential features of the kind of communication around which they crystallise and to which they lend continuity and permanence. It is obvious that civil society affords a limited scope for action. Moreover, a robust civil society can only develop in a “liberal” political culture; its actors can acquire influence, but not political power, and the effectiveness of politics is any event severely constrained in modern-functionally different-societies. Civil society is no macro subject able to bring society as a whole under control and simultaneously act for it” (p. 372).

No matter whether one begins with George Herbert Mead from basic notions of social interaction or covering Emil Durkheim's basic concepts of common representation, in either case, society is perceived from the view of acting subjects as the lifeworld of a social group. In contrast, from the observer's perspective of someone not connected, society can be conceived only as a system of actions so that each action has a functional significance according to its contribution to the maintenance of the system.

For Habermas (2001), societal differentiation has produced four subsystems: the economy, the state, the public sphere, and the private sphere. Between these four subsystems there have been shifts which he described as

fundamental “uncoupling” between the economy and the state which constitute the system, on the other hand, the public sphere and the private sphere which constitute the life-world and these four are interdependent on each other. The life-world, according to Habermas, is the medium or 'the symbolic space' within which the culture, social integration and personality are sustained and reproduced. As a result of commercialisation and the resultant uncoupling of the system, the life-world has become commercialised and with the state gaining more administrative power. Thus, the 'possibilities for communicative action in the lifeworld become attenuated as social participation becomes hyper-rationalised regarding immediate returns. Participants encounter each other as legal entities and as parties to contracts rather than as thinking and acting subjects' (Scambler, 2013, p. 13).

## **8.6 The Theory of Communicative Action**

Habermas argues that anyone that uses language assumes that they can justify four claims to validity: what is said can be confirmed to be exact, truthful, justified, and sincere. That is, users of language make the following claims: What is said is intelligible and obeys certain syntactic and semantic rules so that there is a “meaning” that can be comprehended by others; that the propositional piece of what is said is true; that the speaker is vindicated in maintaining it and some social rights or norms are invoked in the use of language; and that the speaker is honest in what is said, not trying to fool the listener. This is what Habermas calls undistorted communications. When one of the validity claims is violated, say that the speaker is lying, then the communication is distorted. This theory of communication has many implications, including a definition of truth that claims to universality. That is the fundamental characteristics of ICT. The message is delivered exactly as sent.

Habermas's four life-systems and the constant struggle between them informs the work of critical theorists who, according to Guba and Lincoln (1994), have always advocated varying degrees of social action, from turning off specific unjust practices to radically transforming entire societies .

Therefore, policy rationalisation has surpassed the rationalisation of the life-world. Habermas affirmed that the logic of development provides for further rationalisation of the lifeworld - that is, an expansion of the scope of communicative action and communicative rationality, and it follows, for lifeworld “decolonisation,” distinctly through the reconstitution of its public sphere.

It is through the interaction of the ICT (public sphere) with other arenas, namely the private sphere, the economy, and the State since the creation of telecommunication services in Nigeria in 1886 (Nigeria first, 2003) that mirrors an understanding of behaviour in Habermasian terms. ICT culture and tradition at its creation (the life-world) plays a major role in the analysis as a result of the uncoupling of the systems as identified by Habermas. This can be about the history or evolution of ICT and a critical analysis of the changes in functions and nomenclatures of devices within its genesis. It is such analysis that creates an understanding on the impact of ICT today globally and in Nigeria in particular.

The history of Nigeria ICT developed from the telecommunication services which began in 1886 with the installation of a cable link connecting Lagos and the Colonial headquarters in London giving communication channels for administrative goals, ten years later, the first national telecommunications base was established. In 1895, the first rudiments of public communications tools were introduced, and the Public Works Department (PWD) administered a telegraphic system (Federal Republic of Nigeria National Tel. Policy, 2000). In 1907, the Post and Telegraphic (P&T) department was established.

By 1960, when Nigeria got her independence, there were only 18,724 working telephone lines for a population of roughly 45 million, which was a “teledensity” ratio of 0.04 phones per 100 people (Ajala, 2005). According to Ndukwe (2003), in 1960, there existed fewer than 20,000 lines in Nigeria. At independence in 1960, the P&T, which was supervised by the Ministry of Communication (which later became the Federal Ministry of Transport and Communications) took over the obligation for network operation and service provisions. From 1960 to 1975, the telecommunication never received the required government attention regarding infrastructural development. The first two national development plans,

1962 to 1968 and 1970 to 1974, failed to address the issue of infrastructural upgrading and capacity adequately. However, the third national development plan of 1975-1980 targeted significant improvements in capacity and infrastructure in telecommunications. Notably, it set the roll-out target at 1 million lines [but later revised to 750,000 lines] (Ndukwe, 2003). In the end, the mark was grossly unmet (Ndukwe, 2003).

The liberalisation of the telecommunication system in Nigeria is, therefore, a gradual shift in the history of communication, as it has moved from the stage of the public sphere (the State) to private and individual sub-systems, synonymous with the power of the self-regulatory system. In essence, the critical theory provides a critique of the ICT behaviour throughout its history. It also provides a platform for dialogue and generates criticism. The discussion is facilitated by the dialogic nature of the critical theory paradigm of inquiry.

## **8.7 Summary**

The chapter discussed the redrawn science of human exploration into the image of an old but now re-emerging paradigm often called "qualitative research" but is, perhaps, suitably called "hermeneutic empiricism" or easily "hermeneutic science." Hermeneutics allows the meeting of the past and the present under yesterday's environment. This is a platform that provides the common understanding and communication between events through engaged dialect. It connects the cultural gap, norms, and values of 1886 telecommunication and its tremendous progress that now cumulates into today's Internet and ICT interactivity.

There is a strong connection of Habermas's concept of public opinion back to historical roots in the bourgeois public sphere emergent in the eighteenth-century Europe. This was the period when the coffee houses mushroomed and were meeting places for the bourgeoisie; the coffeehouse is synonymous with today's net interactivity.

The establishment of Nigeria's telegraphic department in 1907 symbolises the public use of reason or opinion in the struggle for emancipation, as ICT provides the platform for the three subsystems to converge. The State subsystem played an

important role in the boom of ICT. It was the national policies toward ICT and the growth in the market that shaped the communication destiny in Nigeria. However, ICT did not exist alone but in the four subsystems as identified by Habermas. These four subsystems depended on each other for survival. The dialectic and interpretative nature of hermeneutics on the historical data enhances an understanding of why and how the regulators, service providers, and the consumers behave. Not only does this explain the actors' behaviour regarding the calculus or cultural approach, but it also provides a platform for understanding the ICT behaviour when faced with “critical moments” or “critical junctures.”

The movement from home life, away from the church, and out of government, to a place for people to convene and talk about life creates what Habermas calls a public sphere, a place where issues are examined, discussed, and argued over. Habermas's public sphere, however, has been decreasing and under the attack of large corporations and the media with the apparent implication of a “separate and conquer” strategy. An interesting new occurrence is the creation on the Internet of new public spheres, with applications such as Facebook.

## **CHAPTER NINE- ETHNOGRAPHIC ANALYSIS OF THE SEMI-STRUCTURED INTERVIEW AND THE FOCUS GROUP DISCUSSION**

### **9.1 Introduction**

It should be borne in mind that the term *information and communication technologies* (ICT) was invented to show the seamless convergence of digital processing and telecommunications. Against the common perception of ICT coverage, it is not limited to contemporary hi-tech gadgets or networks. ICTs have since been used as communication tools to convey information, even to remote places. For examples, postal and radio services have been in use since the 11th century in Egypt where pigeon lofts or dovecotes became a living larder for many communities, such as ancient monasteries. For ease of understanding, we can divide these technologies into “old” and “new” ICTs: the former category includes radio, television, telephone, fax, and telegram, while the latter comprises data networks, e-mail, the World Wide Web/Internet, and cutting-edge wireless and wire line technologies.

This chapter deals with the analysis of the semi-structured interview and focus group discussion and documentary material collected from communication agencies, library, stakeholders, professionals, and experts in the industry in Nigeria. It will also discuss the hermeneutics methodology in developing the substantive theory of communication and governance in Nigeria, stemming from thesis data collected mainly from semi-structured interviews, focus group discussions, and documentary materials sourced from the library and communication agencies.

The previous chapter discussed the hermeneutical analysis of the research based on documentary materials and literature on communication and ICT, sourced from information agencies. Unfortunately, documentary research methods have often been incorrectly considered a monopoly of professional historians, librarians and information science specialists, while social scientists rely on surveys and in-depth interview methods, the professional sociologist in particular. If social scientists use documentary research methods, it is only to

supplement information collected through social surveys and in-depth interviews, but seldom as the primary or principal research method.

The phenomenological hermeneutics here takes into cognisance a critical analysis of people (human action) or texts through an emphasis on the very fact of being human; fundamentally, understanding is based on interpretation (Heidegger, 2004; Ricoeur, 2008). According to Ozuem et al. (2016), “Phenomenological hermeneutics is not about abstract supra-individuals or transcendental egos but involves understanding actual people in actual situations”. (p. 278).

As in Ozuem et al. (2016), the methodological approach used is what Denscombe (2010) described as “purposive sampling,” which indicates a presupposition regarding what is sought in a phenomenological hermeneutics context. Indeed, the researchers already know something about the specific people or events and deliberately select particular individuals or contexts because they are seen as instances likely to produce the most valuable data.

Samples are selected with a specific purpose in mind, which reflects the particular qualities of the people or events chosen and their relevance for the investigation.

In pursuing this aim, data were gathered through semi-structured interviews from professionals, communication stakeholders and individuals across Nigeria. Participants were drawn from different profiles, encompassing professionals, semi-professionals, and non-professionals. One to one semi-structured interviews, lasting about 60 minutes, were conducted with respondents to explore their perspectives regarding a range of issues targeting the use of ICT and particularly relating to benefits and problems and proffering solutions to these problems.

**Table 8.1. Interview questions.**

1. In what ways has ICT contributed to development in Nigeria?
2. How useful is ICT to governance in Nigeria?
3. What do you appreciate most about using ICT - Internet and mobile device?
4. When and where do you find yourself using your mobile device? (Please briefly describe the situations/environments in which you use it.)
5. How has bureaucracy slowed down the benefits of ICT in official engagements?
6. Do culture and tradition negatively impact on communication in parts of Nigeria? How?
7. What do you find frustrating in the use of ICT, in particular with mobile devices?
8. What are the problems and challenges facing the communication industry in Nigeria?
9. What will you proffer as solutions to the ICT problems in Nigeria?



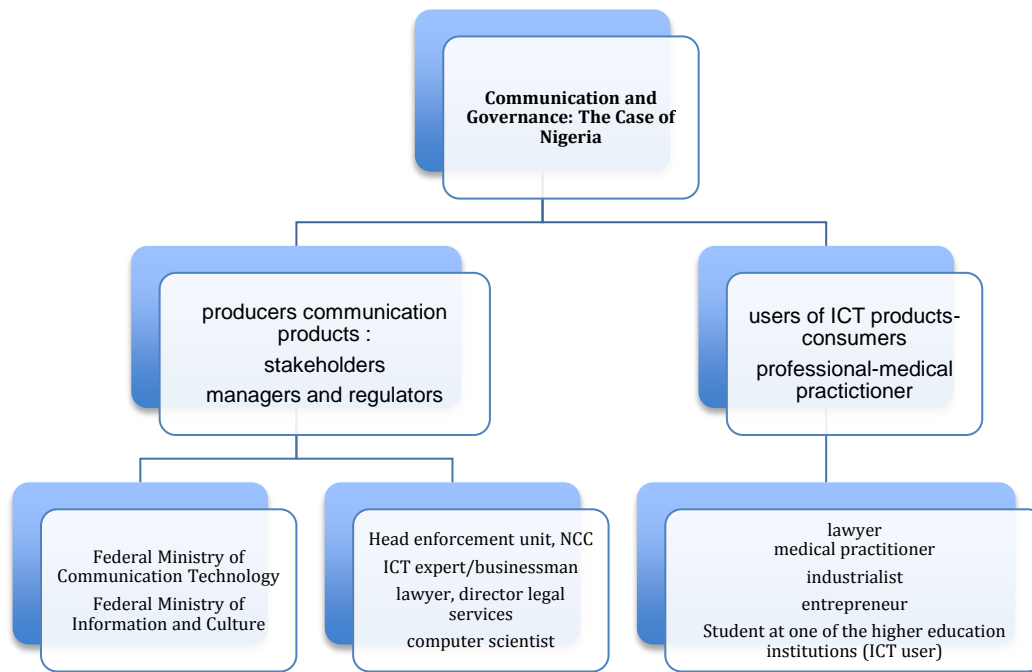


Figure 9. 1. Categorization of the semi-structured interviews and focus group participants for the study Source author

Although the emergent structure and focus of these interviews varied from individual to individual, the underlying outcomes were categorised to create patterns of users and professional perceptions on ICT as a medium of interactions and a tool for development. The interviews were also conducted to explore various perspectives regarding a range of issues on technologically induced service provision.

Most current knowledge is rooted in the mechanisms and assumptions based on the abundance and efficiency of technological infrastructures in developed countries (Damanpour,1992). While many different theoretical perspectives could offer insights on technological developments in developing countries, these findings provide some perspectives on issues related to understandings and utilisation of evolving ICT in Nigeria as a developing country.

Through the analysis of the empirical data, the themes that emerged regarding the issues related to ICT services, usage, and the challenges faced by both the consumers and the producers were categorised into three topical headings, which were set as the main classifications of the research findings: ICT benefits, challenges, and the proffered solutions. Under these headings, several other themes also emerged but were condensed into core manageable sub-themes for

clarity and vividness.

Considering the impacts of ICT on the development of some key sectors in Nigeria since 2000, particularly in the social, political, and economic areas, eight primary themes were identified for analysis: general improvement in communication (information dissemination became easy, faster, and timely), ICT improvement of governance in Nigeria (platform for online political activity and electronic-government), enhancement of security and in the government fight against crime, enhancement of the socio-economic development, improvement in agricultural activities, improvement in education services, improvement in health services, and improvement in the banking system. The industry has, however, been experiencing challenges, which also were categorised under eight themes: malware/spyware and Internet fraud increase, poor network services, the high cost of ICT hardware and services, poor power supply, addiction to social networking, cultural and religious hindrances, lack of education and skills, and bureaucracy and corruption. Some solutions emerged as remedies for the challenges confronting the industry: fight against malware and viruses, tax reduction, service cost reduction, adequate capacity building, government creation of an enabling environment, policy implementation on ICT in Nigeria, expansion of services to rural areas, and efficient regulatory service.

### **9.1.1 Communication :**

#### **Information dissemination now easy, faster, and timely**

The predominant response to the question on the benefit of ICT to development in Nigeria was in the area of ease and fast communication as a result of ICT.

In electronic media, ICT has kindled and prompted radical and drastic transformations that have affected and revolutionised the broadcast industry, particularly in the immediacy and timeliness of news. ICT has not only expedited and improved the creation, processing, sharing, and dissemination of information in the broadcast industry, but the immediacy and timeliness of news are now of high priority.

A journalist who is also an editor responded to the question of the impacts of ICT to development thus:

The contributions of ICT are very diverse. But as a professional journalist, I can tell you that it has changed the face of news reporting, advertising, and marketing communication. ICT has brought about the proliferation of online news sites and blogs, which also serve as advertising platforms. In fact, the traditional media platforms such as television, radio, and newspapers have to contend with news and information sharing through the net which is faster, easier and far reaching..

Another abruptly interjected, saying

Advertising and marketing communication has wide audiences and can be reached with advertising messages, via a tweet on Twitter, a post on Facebook, or videos on YouTube at cheaper rates. So, ICT have also significantly reduced the cost of communication and made it faster, more accessible and timely.

Another respondent opined that

ICT has changed the face of communication in Nigeria. Before the advent of mobile phones and Internet, we were grappling with landlines, which of course I am sure you know what happened with our NITEL here. With the landlines, we were making calls and sending messages through fax, and then we had telegrams. These were more or less traditional or can I say manual. But with ICT, everything has been simplified. Today, people in the remote villages are communicating with their relations in the urban areas in Nigeria. A man living in Angwan Tasha in Nasarawa state can easily communicate with the son in the US without having to travel to Lafia, the state capital, or to Abuja.

According to Crede and Mansell (1998), ICTs are crucial for sustainable development in developing countries. Thioune (2003) writes that for the past two decades most advanced countries have witnessed significant changes that can be traced to ICTs. Notwithstanding, a good number of the social advantages can still be addressed. And these gains include social interactions. Keeping in reach with friends and relations is one of the major social benefits of ICT. ICT has also diminished inequalities of opportunity within rural areas and the urban centres with the introduction of Internet Services, which delivers educational programmes to remote locations.

ICT has great influence in daily life. With ICT, citizens read national dailies using the online newspaper (Arugu et al., 2016).

A respondent opined that

Economically, it is evident when you move around the streets you see boys, girls, and adults selling phone accessories, recharge cards etc. In other words, it has created employment for millions of Nigerians who would have been idle. So, there are whole lot of benefits we have got from ICT..

Again, ICT connects families, relatives, or colleagues while abroad by using electronic mail, messenger, call conference, or videoconference. ICTs have been playing a significant role in human existence from time immemorial, and this has driven humanity to continuously seek ways to improve the process of information and communicating to one another irrespective of the distance and on a real-time basis (Ndukwe, 2002).

A focus group participant noted that

What I appreciate most about using the ICT is the use of social media. That is Facebook, Whatsapp, Instagram. I enjoy chatting a lot. You know, you communicate with people as if you are in the same place, whereas, you are miles apart. There can never be anything as good as this.

Surviving in the information age depends on access to national and global information networks. ICTs are the bedrock for the survival and development of any nation in a rapidly changing global environment, and it challenges society to devise initiatives to address a host of issues such as reliable infrastructure, skilled human resources, open government, and other essential issues of capacity building (Federal Republic of Nigeria, 2001).

A respondent commented further on the ease ICT has brought to communication:

With technology, important meetings can also be held via video conferencing technology systems which allow two or more locations to communicate simultaneously via 2-way audio and video transmissions, eliminating the logistics of travelling, saving time and money. It is also common practice to reach out to audiences by streaming seminars, conferences, and programs live on the Internet.

### **9.1.2 Governance in Nigeria (platform for online political activity and electronic-government)**

During the focal group discussion a participant simply said:

The place of ICT in the political system cannot be over stressed. It is significant in securing an efficient electoral system.

One of the key factors that emerged in the interviews and the focus group discussion is the positive impact ICT has in governance, either through online political activity which is reflected through the democratic participation in elections, through campaign transmission, voting, and transmission of contestant debates, and at the level of administrative activities on governance. Of the respondents, 90% strongly believed that there has been a significant adoption of ICT in Nigeria by the government and that its parastatals have improved on political and administrative activities.

Following the liberalisation of ICT in Nigeria, the nation turned a new page in the running of its administrative and political regime. In realising the gains of ICT, the President, Chief, Dr. Obasanjo (1999-2003), mandated the then Ministry of Science and Technology to provide programmes that can facilitate the buildup of a reliable and cost-effective infrastructure that will support an efficient utilisation of internet services in Nigeria using ICT devices, to drive effectively an efficient public service delivery to the nation.

Conceivably, ICTs contribute to the democratic process by promoting three different types of activities (Tsagarousianou, 1999):

**1. Obtaining information:** ICTs could help provide reports about government and the democratic centres for example, websites generated by administrations, institutions, political parties, campaign groups, and on-line news services. The use of digital communications technology also carries 24-hour news-gathering and dissemination about contemporary political events.

**2. Engaging in deliberation:** The turnout of voters are not only declining. but their presence at public rallies and gatherings and political party groups and participation in political fundraising activities is declining as well (Bryan, Tsagarousianou, & Tambini, 1998; Hale, Musso, & Weare, 1999). The use of ICT, thus enhances the communication ties between taxpayers and their representatives, which demand that government and representatives must display a commitment to listening and learning and respond punctually; otherwise, the

perceived or gap between the governed and the government will only grow. This requires increased resources, skills and facilities (Cabinet Office 2002).

**3. Participating in policy making:** The most obvious way in which citizens engage in political policy making is when their votes are cast for their government delegates. ICTs could make the voting process more convenient by enabling electronic voting, either from a voting station of the voter's choice or through online from anywhere (LGA 2002). This would also accelerate the vote counting. However, there are important concerns to be addressed regarding the demand for e-voting, confidence of the voting act, security of the votes and computing systems, voter access to this technology, and voter ICT capacity before e-voting could be executed on a large scale (BBC 2003; Electoral Commission 2003; LGA 2002; Phillips & von Spakovsky 2001).

Although some countries (e.g. Switzerland) make frequent use of referenda, it is important to mention that direct partnership in decision-making is not often seen as popular. Therefore, electorate participation could be pronounced in policy-making through electronic voting. However, issues concerning secrecy, security and access to the ICT mechanisms remain a challenge.

For instance, in Germany, the failed Weimar Republic, which had strong components of direct democracy with direct involvement by citizens in decision-making, is seen as availing opportunities for populists or demagogues, and thus, a threat to the democratic process, (Hagen 2000; Schmidtke 1998) (See also Bannister & Walsh, 2002). ICTs, therefore, have the possibility of enhancing or re-invigorating political partnerships and the democratic process (Emler et al. 1999; Hahn 1999).

### **9.1.3 Platform for online political activity**

The Internet and online communities provide a platform for democratic participation. People's capacity to use the Internet for political purposes, and deliver messages to public officials (and perhaps get responses), to be able to make conversation about political issues, and to contribute substantially to more vibrant democracy will lead eventually to an improved community, or so goes the hope. Today in Nigeria, the president dialogues with the citizenry through Facebook and disseminates their messages through Twitter.

According to Horrigan (2006), the Pew Internet Project, observed the use of Internet in the 2002 political season in the United States to evaluate people's input on the November election (Cornfield, Rainie, & Horrigan, 2002: cited in Horrigan, 2006). Around 43% of users in the October–November 2002 study said they had at one time or the other gone online for news about politics, and 22% said they had done so especially for outcomes on the 2002 election.

‘Most Internet users that went online for political information were basic information seekers—64% sought information on candidates and their positions on issues in the 2002 election cycle. Roughly one-third got information about a candidate’s voting record, participated in an electronic poll, or went online to see and organisation's rating of a candidate. For complex activities, such as engaging in online chat on elections or financial contribution, only about one in 20 online political information seekers (the 43% of net users who had ever looked for political information online) did so’ ( Kraut, Brynin and Kiesler, 2006, p. 26).

The recent findings from the Pew Research Center for the People and the Press and the Pew Internet Project show a growing reliance on the Internet as a source for political news (Pew Research Center, 2004).

Just before the start of the 2004 primary season for Democrats, 22% of Internet users had gone online for news about the 2004 election. This matches the share of Internet users doing this at about the time of the 2002 midterm election. With the hotly contested 2004 election, the share of Internet users who went online for news or information about politics was up sharply compared to 2000; in 2000, 33% of Internet users said they got political news online, a number that rose to 52% by November 2004 (Rainie, Cornfield, and Horrigan, 2005). Americans who say they constantly learn something regarding the political campaign from the Internet rose to 13% in January 2004 from 9% in 2000, at a time during which Internet invasion grew from 46% to 64%. (Horrigan, 2006 p. 21).

For all Americans, local television news, cable television news, nightly news, and the daily newspaper remain the main way by which people learn about political campaigns (at a rate about three times that of the Internet). However, for young people (between the ages of 18 and 29 years), the Internet competes with the daily newspaper, national and nightly news. Cable television news thus leads,

with 37% of those between 18 and 29 years and they regularly learn something about the campaign from this source, versus 20% who say the Internet (“Cable and Internet Loom”, 2004).

In a nutshell, merely being an Internet user is not associated with higher rates of voting, but having sought out information online about the 2002 midterm election was associated with higher voting rates.

#### **9.1.4 Electronic Government**

Connected to the idea that the Internet can revive democracy is the idea that the Internet may help reinvent government with improvements, it is hoped, in a community level of social capital (Fountain, 2002). By improving how government functions, how citizens communicate with government, and how nonprofits and government can cooperate to address problems, e-government holds out the possibility of a more effective and functioning institutional structure for government. Pew Internet Project research on e-government focused on characterising the frequency with which Internet users go to government websites and how local government officials use the web to connect with citizens.

A lawyer who is also a director in the Ministry of information stated on the importance of ICT to governance thus:

ICT is very useful to governance in Nigeria. With the ICT, documents are saved in soft copy, which is safer and hence, incidences of offices being gutted by fire and every vital record getting destroyed is over. Look at the land registry in most states in the country today; it is computerised. For example, in Abuja, we have Abuja Geographic Information Systems (AGIS), which has made it easy to locate every plot of land and track the owner. As it is today, you cannot hide somebody's file as it used to be the practice in the past. You know when we were doing manual filing, wicked civil servants would hide one's file under the carpet or drawer for months until you bribe them. But ICT has conveniently solved this problem.



### **9.1.5 Security and government fight against crime**

It is apparent in the last few years that there exist close connections between ICT and national security, which plays a significant role in securing the necessary level of national safety and defence of the nation (Snow, 1987).

According to Arokoyo (2005), ICT materials/tools all have enormous potential for use in security covers: radio, television, telephones, quick message services (SMS), the web publishing and search engines, cameras, video, CD-ROM, and DVD, E-mail, and computer. In his contribution, Arokoyo (2005) perceived that some ICT materials are not susceptible to the risks violence and volatility pose for the process of regional integration, growth and poverty reduction.

In the view of the lawyer who is a director of legal services in NCC, ICT is helping governance “in the area of crime fighting and corruption in the system. All the security agencies are deploying ICT to detect crime and prevent it. If you look around, kidnapping is the order of the day in most places across the country. But the use of mobile phone has helped a lot in tracking down criminals. Armed robbers are being apprehended in several instances because of the value of the GSM phone.”.

Another respondent emphasised the importance of ICT in security and service delivery thus:

If you observe, you will discover that with the advent of ICT, the military, the police, the DSS, Civil Defence and other security operatives are cooperating and sharing information amongst each other. Even the police community role is enhanced. It is common to see people calling the attention of police in times of emergency. If there is an accident, people can easily call the Federal Road Safety Officers to the scene of the accident. Also, doing background checks on citizens has been simplified. Government organisations can do background checks on persons' profiles, characteristics, competences, and skills with the use of ICT.

### **9.1.6 Socio-economic development**

In Hargittai (1999), it was clear that the rate of IT dissemination is related to the general level of socio-economic development. According to a recent finding, ICT plays a vital role in advancing economic growth and reducing poverty (Fourie,

2008). A study of firms carried out in 56 developing countries shows that firms that use ICT progress faster in investment and in production and are more profit oriented than those who do not (Fourie, 2008).

It can, therefore, be said that ICTs can be deployed directly to influence the productive capacities, cost effectiveness and competitiveness of industries, which take the advantages to focusing on the development of their economy and the country respectively. The opportunity to benefit from the application of technology and its resulting economic benefits by developing countries has never been greater.

With the huge impact technology is making on entrepreneurship, Nigeria's ICT sector, which currently contributes \$50 billion to the GDP (almost 10% of Nigeria's GDP) is fast stabilising as an economic force to reckon with in Nigeria. Since the introduction of mobile phones in 2001, mobile phones have become a significant proof of the growth of technology in Nigeria. Rising from 866,782 connected lines in 2001 to 151,714,650 connected lines in 2012 mobile phone saturation in Nigeria continues to push the limit. As at February 2014, Nigeria had an estimated 167,371,945 mobile phone users out of a population of 177,155,754 active users of telecommunications services in the country, according to the Nigerian Communications Commission (NCC). With that number of mobile phone users, Nigeria has been rated as Africa's largest mobile internet market, with an estimate of over 140 million subscribers and a penetration surpassing 100% as analysed by the U.S. Census Bureau and local census office. According to the Nigerian Communication Commission, internet penetration in Nigeria increased from just 78,740 users in 2000 to 83,000,000 as at February 2015 (Nwaokolo, 2015).

The evolution of the knowledge society, built on the modern information and communication technologies, is bringing about a colossal reshaping of the Nigeria global economy. Awareness has remained a factor of increase, and an active driver of the social, economic and political environment. Nevertheless, the capacity to manage, store and transmit large quantities of information and data at a cost effective manner has increased in recent years. Digitisation of information and communication products associated with the Internet are promoting a new

enthusiasm in the application of knowledge to economic exercises, predominant to creation of business and wealth. ICTs are also propelling a rapid globalisation of business activity and innovations which fuel new job creation and economic growth. It is rapidly becoming the key constituent in global competitiveness.

A participant classified as a user during the focal group discourse had this to say:

ICT has affected practically every area of life in Nigeria; they pattern our private lives and our work. In the social and economic sphere, ICT has also become increasingly necessary on the macroeconomic level. ICT today is an essential tool for industrial activities, and it's a steadily growing sector with a high economic significance. ICT-based solutions and technologies also make valuable and critical contributions to value creation in other sectors, e.g. trade or manufacturing industries.

According to the Punch Newspapers (2016), the Executive Vice Chairman of the NCC, Professor Umar Danbatta, revealed that in the on-going digitalisation programme, the number of connected telephone lines in the country grew to 216 million from 210 million between January and March 2016. The statistics of the Commission also revealed that the phone sector added 1,270,766 telephone lines to the previously ones within the three-month period. It was reported that out of the 216 million connected lines, only 149 million were running, with the Global System for Mobile Communications operatives possessing 147 million lines; the Code Division Multiple Access controlling 1.2 million, whereas the fixed wired/wireless operatives have 176,579 lines. The GSM operators, with 210 million connected lines in January, boosted their scope to 211 million in March, so did the Code Division Multiple Access lines grew from 3,678,068 to 3,678,796. The fixed wired/wireless lines also jumped from 351,625 to 353,830 (Punch Newspapers, 2016).

A participant interjected during the focal group discussion that:

Information Communication Technologies (ICTs) has helped in poverty reduction in Nigeria. Basically because the government has embedded and synchronised policies and resource with conducive environment, which involves freedom of motion, competitive markets, independent regulators, a universal service fund and other elements.

National poverty reduction strategies or sector-specific strategies, ownership by the local communities, and partnership and networking were keys to effective poverty reduction programmes. The government has, therefore, developed programs that create awareness on the benefits of ICT and sensitise the people on the best ways of utilising ICT facilities at their disposal. Technology absorption and mastery takes more than importation of technology; learning which demands explicit investment is a prerequisite for building the technical and managerial capabilities (African Information Society Initiative, 2005). Given the foregoing, the diffusion of ICT will have widespread, albeit differentiated impact on the country's, industries and sectors.

A business tycoon respondent categorised as a user of ICT product added to the significant contribution of ICT to economic activities in Nigeria thus:

ICT has affected this country as someone who operates a business café; we get busy every day. I can say the Internet is the biggest revelation and there is hardly anyone who does not have one or two things to do with it. And then when you talk about the mobile phone, it is simply amazing. It is for young and the old, the educated or even illiterates. Everyone is making good use of the phone.

According to Ozuem et al. (2008), the Internet is a model of distributing and computing that facilitates interactive multi-dimensional many-to-many communications. As such, the internet supports discussion groups (Usenet News and moderated and non-moderated mailing lists), global information access and retrieval systems such as the near ubiquity of the world wide web (WWW). The WWW, the first and current networked global implementation of a hypermedia computer-mediated environment (CME), is now established as an important newly emergent commercial medium and marketing environment (Hoffman & Novak, 1997).

#### **9.1.7 Agricultural activities**

According to Ozowa (1997), over the years, planned but ineffective attempts have been made by donors and African countries to improve agricultural development but with very slight success. The reason for this failure is associated with the non-integration of agricultural information with other development programmes as a solution to the numerous problems that farmers

face. Information is a vital tool in agricultural development programmes. Unfortunately, Nigerian farmers rarely feel the influence of agricultural innovations either because they have no access to such key information or it is poorly diffused. The integration of ICT in the agriculture practice in Nigeria was utilised to provide accurate, timely and useful information and services to farmers, thereby facilitating the environment for more remunerative farming. These are part of the services provided by the Nigeria Meteorological Agency (NIMET) on when and when not to plant a particular crop at a season. These are seasonal crop cultivars. With ICT facilities, farmers were able to be updated on heat, humidity and rainfall with extra parameters like atmospheric pressure, solar radiation, wind speed and soil moisture. The use of ICT portal or agricultural website helps in the dissemination of vital agriculture information such as detailed online contents, crops, crop management techniques, fertilisers and pesticides, and many other agriculture-related materials. Most of the small-scale farmers sell their products to intermediaries that now fix the prices to the detriment of the farmers. But with the provision of commodity rates and market information on real-time basis available on the internet, the farming community can now be provided with choices they lack today. This ensures better price consciousness and stimulates a drive on better productivity. Again, with online commerce, farmers can sell their products online. In this respect, the farmer can sell his product right inside his farm. What the farmer needs do is to register his location and products, to ensure that products reserved online can be linked to a particular farmer (Samuel, 2010).

In research by Sobalaje and Adigun, (2013) on the use of ICTs by farmers of yam tubers in the Boluwaduro Local Government Area (LCA) of Osun State, the investigation used a cross-sectional finding design and data collected with a structured questionnaire from 150 respondents selected by random sampling technique on five towns in the local government area. The data gathered were examined with descriptive statistics and regression interpretation to find the relationships between variables. The results revealed that most of the Boluwaduro yam farmers who use ICTs to source agricultural information had secondary education and they were on average 35 years old. The finding corroborated the opinion that ease of access and availability of agricultural

information were the major factors that influence the choice for ICT use by the yam farmers in the Area, and communication tools such as television, radio, and the mobile phone was the preferred media for the activities of the yam farmers. It was discovered that infrastructural facilities are the major problem restraining the usage of ICTs by the farmers in Boluwaduro and that demographic factors do not have any vital association with the adoption of communication apparatus by Boluwaduro yam farmers. During the interview, a respondent stressed that:

The ease with which the Federal government reaches out to the farmers directly through mobile telephone network in the distribution of its fertilisers, has automatically eliminated the middleman syndrome which often shot up the price of fertiliser products. Orders are now taken through telephone calls, and supply notification also conveyed through the phone calls.

From the interview, it was revealed that, with ICT, farmers can get information on some agricultural products with ease. For instance, instead of selling unprocessed groundnuts you could improve the value by further transforming the nuts into peanut butter and cooking oil. Timely and accurate ICT information on weather, pests, and diseases can prevent calamity felt in agriculture in recent times, due to the vagaries of weather and attack of pests and diseases.

#### **9.1.8 Education Services**

According to Ozuem et al. (2016), online activity has allowed access to world post-modern perspectives regarding the plurality of experience as well as fiction and uncertainty. Certainly, the Internet has become an all-encompassing divergent place where all manners of people can socialise with one another and source for knowledge. Users are aware of the wealth of information that can be obtained online. From the post-modernist viewpoint, users can adopt various personal information and fit in any part of the different communities where they can easily display themselves and communicate as well as dialogue their concepts and discovery. That said, Ozuem et al., (2016) note that "the idea of education involves a modernist element in terms of Enlightenment thinking and the development of knowledge as intrinsic to the creation of a better society and healthy democracy" ( p.10).

A student respondent opined that:

Students now do not have to suffer filling admission forms on hard paper; it is done online and with ease.

The progress in ICT, in particular electronic information resources such as electronic books, electronic journals, Compact Disc Read-Only Memory (CD-ROM) databases, the Online Public Access Catalogue (OPAC), online databases, and the Internet have propelled the world into an information age. No system or organisation can still rely on only traditional printed knowledge resources to perform efficiently and effectively. Today's library is built on ICT, which is a significant development that produces the tools needed for managing the vast information materials generated by modern society.

In Nigeria, ICT has helped the society to create, collect, synthesise, communicate, manage, and process information in multimedia and several digital formats for diverse purposes. Development in ICT have caused the merger of the computing, information, communication, entertainment and mass media industries thereby providing a means of interacting information anytime anywhere in the digital format used by computer.

According to Lean et al. (2000), various institutions currently have turned to “modern” methods of service delivery different from the traditional face-to-face contact between trainer and trainee. For instance, in distance learning, “The learner is not continuously and immediately supervised by an instructor or a tutor; does benefit from the services of a training/tutorial organisation; utilises [training] materials in a variety of formats” (Stewart & Winter, 1995, p. 202). Computer-based methods allow flexibility of delivery allied to responsiveness to individual needs (Marchington & Wilkinson, 1996).

The coming of ICT has brought huge changes in library and information science. Application of ICT in library functions and work has metamorphosed from the traditional understanding of data storage and archive of books to an “intellectual information centre” resulting in the birth of a digital library. This thus has opened up a new chapter in library operations and has facilitated a global access to information not bound by geographical limitations. With the invention of ICT, library activities now apply multiple types of technologies to learning services. Every day, new technological progress affects the way information is handled in libraries and information centres.

### **9.1.9 Health services**

As a user of ICT, a doctor noted during the interview that

ICT has made research much easier and for those of us in the medical profession, sometimes, when you have a critical case at hand, you can just put a call to a colleague and seek for advice. Sometimes, one doesn't even have to call anybody. You just log onto the Internet and get clarification.

Today, new technology has produced significant changes in the health sector (Bates, 2005). In their studies, Harden (2002) and Davis and Harden (2001), believe that health services have also undergone profound transformations due to recent technological progress. Furthermore, health services providers, especially in the developed countries funded heavily in ICT, not only provide health care but have improved the quality of services provided by health professionals, with online health care information perhaps being the best example.

Issues about health care, depending on their severity, introduce uncertainty into people's lives, and the typically brief face time that people have with health care providers can contribute to additional information risk. The ability to obtain information online—either from healthcare sites or online support groups from similarly afflicted people—is a source of both comfort and the capacity to ask better questions from a health care professional. Being able to surf for healthcare information at their convenience is greatly valued by users and helps explain why many Internet users say medical information online has improved how they manage their health. The way in which online communities seem to draw people is another example of this phenomenon.

### **9.1.10 Banking services**

The evolution of e-banking began around 1986 when the banking industry in Nigeria was deregulated. The liberalisation, therefore, brought far-reaching changes through computerisation and enhanced bank service delivery. Competition with new products became strong within the operation, while the customer sophistication became a challenge for them. Hence, the reengineering processing methods of business activities helped the automation of financial services amid the diverse rank of commercial and merchant banks.



In a way, the rise of this contemporary banking system following the liberalisation of bank licensing triggered the introduction of high technology in the Nigerian banking operation. Some of them considered the old approach to banking as having no regard for the customers and, therefore, a recognised weakness they could exploit.

Electronic banking can, therefore, be described as the act of doing businesses transaction in the bank using electronic devices, such as computer systems, global system for mobile communication (GSM) technology, automated teller machines (ATMs), phones, Internet facilities, character recognition (OCR) technology, and optical smart cards. E-banking is about managing the infrastructure of the electronic age, which creates opportunities for both the local and global spheres. E-banking enables a dramatic reduction in business costs and generates new types of banking privileges that address the various challenges of time and distance.

A respondent businessman's reaction to the significance of ICT to the banking industry was that

ICT has made banking so easy that one can sit in the comfort of his home and conduct business worth hundreds of thousands of naira.

The rapid dissemination of materials through the Internet has radically changed the delivery channels used by the financial services industry. Many banks have established ubiquity on the web using web technologies providing customers with the opportunity of performing interactive retail banking transactions.

All the respondents also believe that the use of ICT has facilitated fast processing of information and dissemination in Nigeria, which is key in economic development in any nation.

ICT has impacted the interactiveness in the retail banking business significantly. The rapid diffusion of the Internet has radically changed delivery channels used by the financial services. According to Ozuem et al. (2016), "The rapid diffusion of the Internet has radically changed delivery channels used by the financial services industry. Many banks have established a presence on the web using network technologies providing customers with the opportunity of performing interactive retail banking transactions (p. 273). Internet banking has improved

customer relationships and has become part of a general trend in the banking world: "the banking industry provides strong incentives for banks and customers to use the Internet" (Ozuem et al, 2016, p. 277).

The apparent gains attributed to Internet banking provided companies and their customers new ways of interacting among themselves. Much recognition has been given to the use of the technology in financial institutions in the areas of technologically induced customer services and customer and retention strategies in developed countries (Daniel, 1999; Mols, 2001; Nielsen, 2002; Neilsen et al., 2003; Ozuem et al., 2016).

A focus group participant opined that

With ICT, communications between the individual and the banks within or across various geographical regions or boundaries have improved because of the electronic mailing system. The online information services render bankers and customers with a robust vehicle for research.

The online services of the banks have availed both customers and staff numerous conveniences in their transactions such as paying off bills and conducting other financial exchanges electronically. The availability of the ATMs and GSM banking have added much ease to the e-banking system in Nigeria.

## **9.2 Challenges and Problems in ICT Services**

As discussed previously, ICT has successfully bridged territories and boundaries by providing unbiased information and knowledge of diverse categories with necessary data as soon as fed on the website. Nonetheless, Nigeria as a nation is yet to maximise the advantages and the opportunities provided by ICT-driven products and education. This section will, therefore, highlight the challenges of ICT-driven products and services. The research will also provide solutions to the problem as revealed from the findings. Despite the massive investments in ICT infrastructure and ICT capacity building, Nigeria is still to a large extent digitally isolated from the global village because it lacks the critical drive and strategies to harness the full potential of ICT for the socio-economic development of the country. There have been some challenges facing the full ICT deployment in the country, according to respondents.

### **9.2.1 Malware, spyware and Internet fraud**

The increase in malware, and the frequency in the ways it is being used to steal private data, control espionage, harm government and business transactions, or deny user passage to information and services, remain a dangerous threat to the Internet economy, to the capacity to further e-government for citizen services, to individual's online social experiences, and to state security.

According to the Organisation for Economic Co-operation and Development (OECD)/CODE (2008), malware attacks all actors. It is a serious concern for governments, businesses, and individuals in the (OECD) Countries, the Asia-Pacific Economic Cooperation (APEC) and developing economies like Nigeria. As private individual and governments rely totally on the Internet for the provision of services, they, however, face complex difficulties in securing information systems and networks from invasion or penetration by malicious actors. Governments are frequently requested by the public to intervene and protect consumers from online threats such as ID theft. This has been the case in the last five years. malware assaults on information systems for the purpose of collecting information, stealing money and identities or even denying users access to essential electronic resources has been troubling. These activities have been on the increase. Notably, malware has the capacity to disrupt the running of large information systems, modifying integrity of data and attacking the information systems that control and/or manage important systems of critical infrastructure (OECD/CODE, 2008).

Stressing how much damage malware and viruses have done to private and public businesses, a respondent recounted a story of a company he knew that lost millions of US dollars as a result of the malware sent to the account section of the company. This, he said, caused the loss of account details and personal account information of the company and the eventual loss of a substantial amount of money. Malicious actors take advantage of the fact that many countries do not have adequate legal frameworks/cybercrime laws and cyber investigation capabilities in order to engage in Internet crimes.

### **9.2.2 Network services**

The poor quality of ICT services provided in Nigeria has been a challenge to all users. Ranging from television and radio to telephone services, reception remains a nightmare to subscribers. This is more prevalent from the services rendered by the major mobile telephone service operators, such as MTN, Airtel, Etisalat, and Globacom, to their numerous subscribers. During the focus group discussions, a respondent expressed his experiences thus:

What I find frustrating using mobile phone in Nigeria is high incidences of drop calls. Poor network is our problem. You call somebody, you will not hear what he is saying but your airtime will be deducted. This is most annoying.

He added further that:

Network problem is the number one. Sometimes, the person you want to call is just a few metres away yet the phone will be saying, the number you are trying to call is not available at the moment. I find it nauseating. But it is only in Nigeria that such things are allowed to occur without any compensation.

Some of the poor services are prevalent in the number of the high rate of drop calls, limited network coverage, frustrating Internet services, unjust charges, lack of suitable customer care agents, uncompleted calls, and interference from other callers:

It is a normal occurrence that you put a call through to someone; meanwhile, another person entirely answers you. It may sound funny but it happens and many mobile phone users can attest to this. Also, when you make a call, it keeps fluctuating; you cannot get the person you are conversing with clearly.

These were the interjections of a student, who relied on ICT services for all his academic and private communication activities.

### **9.2.3 Cost of ICT hardware and services**

Until the prices of hardware and software drop, ICT may not be within reach of most users in Nigeria. This may remain the case for as long as personal computers are required for data access. When developing countries suffer higher hardware costs, how much of this is due to import duties or other artificial constraints or a lack of local production capacities? At what price stage would computers be affordable? Rather than a computer *per se*, could a standardised

and mass-produced device work as a computer, TV, telephone and digital VCR? There is also the challenge of multiple taxations from government agencies and the service providers, which add to the cost borne by the consumers.

In many countries in Sub-Saharan Africa, like Nigeria, the high cost of telecommunication services remains a barrier to accessing ICTs (Enakrire & Onyenania, 2007). One can, therefore, opine that the high cost of ICT in the country is responsible for the poorly developed information infrastructure and the poorly equipped information services personnel. The high cost and the inconsistency in government policies on ICT services also have negative repercussions on the library and information institutions sector, which are powered by the communication sectors.

A respondent stressed that

Most of the communication companies rely on generators to power their equipment and this has, unfortunately, made the cost of services to rise.

#### **9.2.4 Power supply**

Power supply has been a perennial problem in Nigeria and has devastating impacts on the socio-economic activities in Nigeria. The respondents perceive epileptic power supply as a major constraint to utilising ICTs in the management of communication in Nigeria. It was unanimously agreed that the unreliable power situation in the nation has been a clog in the wheel of smooth operations. Then the cost of fuel is another issue ancillary to power shortage. It is one of the biggest challenges been faced by the communication industry. “Epileptic power supply in the country has been a source of concern”, said a respondent.

#### **9.2.5. Addiction to social networking**

It was revealed by the respondents that ICT has contributed in no little amount to the social ills in the society today. It is addictive and obsessive and causes depression, mostly among teenagers. The addiction is not bound by age, gender, or race. This is primarily because accessibility is unlimited for hours and days. There were reported cases in some parts of the world, such as China and Korea,

where young parents were busy playing online games until they abandoned their newborn babies. They did not feed their babies for a full day, leading to their deaths. “The Internet causes pornographic addiction as a result of the endless access to different kinds of pornographic materials and unrestrained websites. Kids could have easy access to these website unhindered,” said a respondent.

With merely ticking a button to indicate age, permission is granted into age inappropriate sites and gambling without limit. There were incidences of cyberbullying across Nigeria and cases of kidnapping facilitated with the use of mobile phones to make calls. These cases were recorded all over the country. Workers and students had fallen victims of these crimes.

#### **9.2.6 Cultural and religious hindrances**

According to World wide web foundation (2014), the extensive uptake of web-enabled ICTs infers that society and technology have grown “interdependent and are evolving in a dialectic process of cultural and social appropriation” (de Bruijn, Nyamnjoh, & Brinkman, 2009, p. 12). As social and communicative tools, web-enabled ICTs are used as techniques to overcome the status quo and experiences of distance posed by immobility and marginality. The particularities of web-enabled ICT use and processes of engagement enable individuals to enhance their social status via access to knowledge. They, hence, provide a means of negotiating social positioning. People can reach their social worlds via web-enabled ICTs as social tools, thus challenging the foundations of space, place and territory. Web-enabled ICTs pose as a unique gateway, offering the potential for reconfiguring the architecture of human communication and social life.

However, in parts of Nigeria such as the northern regions, religion and culture do hinder the full benefits in the use of ICT. For instance, certain faiths forbid the watching of television as it is believed to feature some immoral pictures that are considered as impure. Also, in some parts of the north, young males are not allowed entrance in some houses where Islamic women live.

A respondent noted the following:

I know that there are some communities in this country where women are barred from using the phone in public. It's not as if they cannot use it but it must not be in the public. So such a culture or tradition may impact negatively on communication.

### **9.2.7 Education and skills**

According to Opoku (2004), another major identifiable difficulty facing the attainment of the full potential of ICT, is education. There is the lack of a skilled workforce to manage available systems and inadequate training facilities for ICT education at the tertiary level. This apparent lack of the required degree of sophistication and information management expertise on the part of the end-users of ICTs (students, staff, and researchers) makes it difficult for the efficient harnessing of the opportunities offered. This has consequently taken tolls on research and development in the country. The effects of the brain drain can also be argued to have contributed not only to lack of medical and other critical professionals in the country but also ICT gurus. This has resulted in the lack of ICT engineers and scientists relevant for undertaking ICT related projects professionally.

A respondent put it thus

I think there is a critical lack of engineers and scientists relevant to undertaking ICT-related projects professionally. The most talented people in this area leave for other economies.

Many ICT tools such as the computer place significant demands on the users' knowledge and skills. Some people see their lack of understanding as a difficulty in the adoption of use; others strive to overcome this by learning. Nevertheless, there is usually the option to delegate learning to others and benefit from their knowledge. Knowledge and skill problems are frequently due to complexity with the user interface. Finding a way for people to communicate with multiple machines and information systems, including ICTs, has always been a problem. Users are expected to put in considerable effort on how to control the system, navigate and play around with the information, to learn the interface used and input data etc. Many users, however, find interfaces confusing and difficult to use (Norman, 1990).

### **9.2.8 Bureaucracy and bad practices**

There are explanations for the state of corruption and the poor quality of public institutions resorting to variations in cultural values, economic development or political systems (Holmberg, Rothstein & Nasiritousi, 2009). “Corruption lowers private investment, thereby reducing economic growth, even in subsamples of countries in which bureaucratic regulations are very cumbersome. The negative association between corruption and investment, as well as growth, is significant, both in a statistical and in an economic sense” (Mauro, 1995, p. 683).

A respondent painting the level of corruption in the system commented that

In Nigeria some people feel they can circumvent any policy or plan of the government to achieve personal gains. We have instances where government officials compromise on what they are expected to do. If you recall, sometimes in the fifth or sixth Assembly, a member of the House of Representatives accused his colleagues of accepting free recharge cards from one of the service providers, specifically Mobile Telephone Networks (MTN). It was an Honourable member from one of the far northern states and what happened? He was suspended from the parliament. So, in such cases, the parliament that should oversight NCC and even MTN benefiting from the company, how would they do the job? So, when they benefit, they now use red-tapeism to slow down government actions and decisions.

An interviewee responded thus:

Bureaucratic bottlenecks have affected efficiency in the ICT industry. The supervisory agencies have not been up and doing. There is some kind of laxity on the part of the regulators. The NCC is most culpable in this aspect.

## **9.3 Recommendations**

Based on the analysis of the responses to the semi-structured interviews, focus group discussion, and the documentary evidence collected from information and communication industries, the following came out as recommendations to optimising communication services in Nigeria.

### **9.3.1 Fighting malware and viruses**

Malware displays complex technical challenges, and, therefore, solutions to fighting it need to be sustained by industrial actions such as filtering, which may



be an efficient way to minimise the amount of illicit traffic on the network. Malware perpetrators also take advantage of the complex challenges faced by law enforcement and incident response when working outside their jurisdictions, which are constrained by geographical boundaries. Cross-border information sharing among law enforcement entities is a critical element of investigating and prosecuting cybercriminals. While mechanisms such as the G8 24/7 Cybercrime Network provide for points of contact among such law enforcement entities, it is unclear how such networks co-operate among themselves.

### **9.3.2 Tax reduction**

According to Aginam (2016), the passage of bills on ICT tax regime, considered sometime in 2016 by the National Assembly, would have created hardship for the citizen and a challenge to Nigeria's ability to achieve its 30% goal of the broadband entrance by 2018. It would have also threatened the socio-economic progress driven by increased connectivity according to Alliance for Affordable Internet (A4AI). The group revealed that about 50 million Nigerians would have been unable to afford Internet access if the government had passed the bill. Improving access and usage of the Internet and communication technologies is central to Nigeria's development agenda. It is, therefore, interesting to note that while the present tariff in Nigeria is considered Africa's most affordable Internet rates (500MB priced at 5.4% of average income in 2014), broadband penetration stands at just 12%. (Aginam: Vanguard, May 15, 2016)

### **9.3.3 Reduction of cost of service**

In 2014 the Federal government reduced taxes on smartphone rates and eliminated multiple taxations on Information and Communications Technology (ICT) services. The then Federal Minister of Communications Technology, Honorable Dr Omobola Johnson, had declared five Nigerian states - Abuja, Bayelsa, Cross River, Lagos, and Ondo - as "smart states." They formally signed a memorandum of understanding with the then Minister to join the country's Smart State Initiative, meant to advance the growth and accelerate the deployment of ICT infrastructure all over Nigeria. Minister Johnson revealed that Lagos had decreased its right of way (RoW) fees by 85%, and Bayelsa state

slashed its rate to 50%. Each of the five states reduced cost on ICT infrastructural taxes as much as 50% (Okonji, 2014). The smart states also created one separate agency to manage the collection of charges on behalf of the government. The discount in taxes and fees assisted in reducing the costs of infrastructural services for connectivity. This, will, in turn, pull down the cost of accessing the Internet and allowing more Nigerians to connect online. Other States, including Anambra, Gombe, Osun, and Delta, also indicated interest in being part of the smart-states initiative.

#### **9.3.4 Improve network services**

The realisation of the importance and the opportunity ICT offers for today and the future economy should propel the government towards putting forward strategies at improving ICT network services. The policy should focus more on elaborate infrastructure needed for fast and reliable Internet access through institutionalised and private sector participation. Network providers should at different times be encouraged to improve the quality of network services. Such pushes had propelled MTN and other network providers to frequently assure Nigerians of the will and determination to enhance the quality of service in all spectrums throughout the country. In 2014, the 76th Telecoms Consumer Parliament, organised by the Nigerian Communications Commission (NCC) in Lagos, had as its theme, “Data Service Delivery: The Way Forward”. It was an initiative launched as a way of improving the poor quality of network service experienced by customers. The effort was geared towards contributing to the broadband, which was essential to the economic and social development of the country.

#### **9.3.5 Adequate capacity building**

Capacity building is essential for improving the high service demand on ICT today. There is an essential need to educate Nigerians on the use of ICT. “An awareness campaign might be [conducted on the] usefulness of the Internet and its applicability to every area of life. Educating consumers and members of the public should involve free demonstrations and presentations on the basic

usability skills needed to derive satisfaction from the Internet” (Ozuem et al., 2016, p. 288). With the increasing use of ICTs in Nigeria, there is the need to develop skills and opportunities that improve effectiveness in everyday ventures, as well as position their information infrastructures for the digital economy. “The Nigeria Project is one of the ICT programs designed to sustain these reforms. Financed by the U.S. State Department, the project was jointly created and managed by Emporia State University in Kansas and three Nigerian library schools. One of the project goals is to build the capacity of the Nigerian institutions to use ICT in supporting development of civil society” (ASIST 2002 Panel, pg.520).

Project activities have included team teaching and collaborative learning by faculty and student bodies of international information policy issues and their implications for development. The outreach component of the project includes preparing public librarians who could use ICT to teach civic education and computer literacy to local civic organisations, as well as foster public discourse and civic engagement in their communities (ASIST Panel, 2002). As part of efforts toward capacity building, the Global System of Mobile Communications Association (GSMA), the umbrella body for all mobile operators, equipment manufacturers, and vendors, among others, recently opened talks with the NCC on capacity building and other issues.

#### **9.3.6 Government creation of enabling environment**

An enabling environment can be considered as a set of interrelated requirements, such as legal, bureaucratic, fiscal, informational, political, and cultural conditions that impact on the capacity of investors to engage in investment processes as in ICT for sustained, efficient, and profitable results. With these environments, both government and the stakeholders in the industry have to collaborate for a positive end goal. The Federal Ministry of Communication Technology (FMCT) and the Federal Ministry of Information and Youth Development (FMIYD), with their parastatals, should frequently review and establish the needed unique ICT and collaborate with international agencies for courses/programs and projects that would provide skill training and opportunities for people in various research fields, creativity and innovations on ICT infrastructure; content development;

law; policy and regulatory affairs; industrialisation; governance; online distance services, including telemedicine and distance education; and Internet marketing. All these will thus improve to a large extent ICT and communication services in Nigeria.

### **9.3.7 Improve power supply and distribution**

In Melodi and Ogunboyo (2013), a research paper on the application of a computer-based data acquisition system to electric power distribution planning, reported that “a microcontroller-based mains data-acquisition device was designed to measure voltage and frequency of mains supply over a long span of time and the data acquired stored on the computer system. The data were subsequently analysed to show discrepancies from the lower and upper boundary of nominal voltage values ( $220V \pm 5\%$ ) of measured values. The values of voltages recorded fall outside of the range of more than 70% of the total period recorded, and only about 30% of the readings were within the nominal range of values. This indicated notable discrepancies in the actual voltage supplied to consumers in the residential area and the nominal values” (p. 292). Thus, power in the area considered can be improved by reducing the number of consumers in the area connected to the distribution transformer. The system can be used to acquire electric power distribution data in any location of concern. The investigation of the data can be a useful tool in the hands for power distribution for engineers to achieve better distribution planning.

Government agencies such as the Economic and Financial Crimes Commission (EFCC) should re-invest the many resources recovered from the siphoned public funds in the strengthening of power supply to enhance the ICT industry particularly in rural and urban Nigeria.

### **9.3.8 Policy implementation on ICT**

There cannot be a full realization of ICT benefits without the government enforcing relevant policies and legislative regulations on its practice across the country.

In the findings of Baro (2011), efficient ICT use in Nigeria, like in any other part

of Africa, should be established with a strong information policy, which is an instrument presently absent in many African countries. Alabi (2004) argued for the necessity for an information policy in Africa that will embrace ICT and other related policies. Without an information policy, full utilisation of information technology and its benefits would be a mirage regardless of how well it was set. There are sufficient existing global drivers that should propel Nigeria and other African nations to take steps in improving and executing national policies on information.

Ifidon (2006) described Nigeria as “a nation without information policy.” The lack of information policy coordinating, the acquisition, organisation, and dissemination of information, particularly for developmental goals, tends to be a significant challenge in all the African countries (Mostert, 2001). The absence of these policies leads to poor coordination between related information practices as well as to unnecessary competition, Mostert posits.

In an address on how the new media can be instrumental in overhauling the existing communication and education sector through ground-breaking initiatives Professor Lai Oso spelt out the hindrances involved in the process; “How do we change our curriculum, I know the Nigerian Press Council (NPC) and UNESCO have been trying to see that we revamp the curriculum to be able to take into consideration some of these emerging trends and challenges.” (Salau, 2015 p.1). As is evident from his statement the path to successful changes in the country’s communication and education sector is through policy related interventions with due consideration to the contemporary alterations that the ICT and education fields are seeing.

### **9.3.9 Expansion of services to rural areas**

Despite the progress in ICT service in Nigeria, it is appropriate to say that the country still limps behind in the global development in communication technology. Mosts Nigerians live in rural areas and are, therefore, completely cut off from access to telecommunications facilities. The NCC’s decree 75 of 1992, which was inaugurated in July 1993 and established the obligation to achieve the objectives of connecting the rural areas, could not realise the primary goal of

telecommunication services in the countryside, thus denying the rural dwellers from enjoying ICT services (Baro, 2011). Donner, (2005) citing Keyani and Dymond (1997) state that an average of 70 percent of the population in developing countries lives in the rural areas and are and mostly engaged in agricultural activities. There is much inequality between urban and rural economies, and the rural area depends largely on the metropolitan area for sustenance, and they are, therefore, highly marginalised. The industrialised nations, through policy decisions, have ensured that the rural communities are brought into the mainstream of the national improvement goals (Olubamise, 2006). As the structure of the urban economics changes, with services increasing much faster than the other sectors, and reflected in the structural development in the rural economy, information-based services begin to account for most of the growth in services, leading to other sectors becoming increasingly information intensive. In the end, the transformation will eclipse some of the problems faced in the rural areas, such as lack of job opportunities and shortages of essential social and economic infrastructure like electricity, health, education, safe water, telecommunications, and good roads.

### **9.3.10 Efficient regulatory service**

It is important that all ICT bodies be empowered to regulate ICT practice in the country, especially to deter unscrupulous elements in the society from abusing ICT facilities or use of the internet, online blogging to commit cybercrime, child pornography, fraud, kidnapping, violence, and so forth.

According to Odufuwa (2012), with the exception of the National Space Research and Development Agency (NASRDA), all existing entities engaged in ICT policy formulation, implementation, and regulation report to the Minister of the new Ministry of ICT. The restructured Ministry coordinates and monitors the enactment of the government's ICT management; it supports the practice and development of technology, and, indeed, it is the coordinating ministry for ICT regulation in Nigeria. The following regulating bodies are within the draft Policy of 2012 and report directly to the expanded Ministry:

**Nigerian Communications Commission (NCC):** The NCC controls the

Nigerian telecommunications industry and has wide discretionary powers to license operators, encourage competition, monitor tariffs and quality of service, protect consumers, and regularly promote affordable service.

**Nigeria Broadcasting Corporation (NBC):** The NBC controls the broadcast industry and issues licences, assigns broadcast frequencies, sets rules, and monitors compliance with the transmission code. With previous laws, the NBC briefed the presidency through the Ministry of Information. With the draft Policy of 2012, however, it now has merged with the NCC and is supervised by the enlarged Ministry of ICT.

**National Information Technology Development Agency (NITDA):** Instituted by the Act of 2007, the agency is responsible for the implementation of the 2001 National IT Policy and is empowered to plan, promote and develop IT diffusion and projects.

**National Frequency Management Council (NFMC):** The NFMC is responsible for the management of radio frequency spectrum in Nigeria and is in charge of policies, planning, coordination, and the wholesale allocation of spectrum to other ICT regulatory bodies. The NFMC is made up of representatives of bodies such the Ministries of Aviation, Transport, and Science and Technology and of the NCC, the NBC, and the State Security Service. It meets quarterly, with the Minister of Communication Technology serving as Chair.

The bodies need to double their efforts in their regulatory commitments for the realisation of the maximal benefits of ICT services.

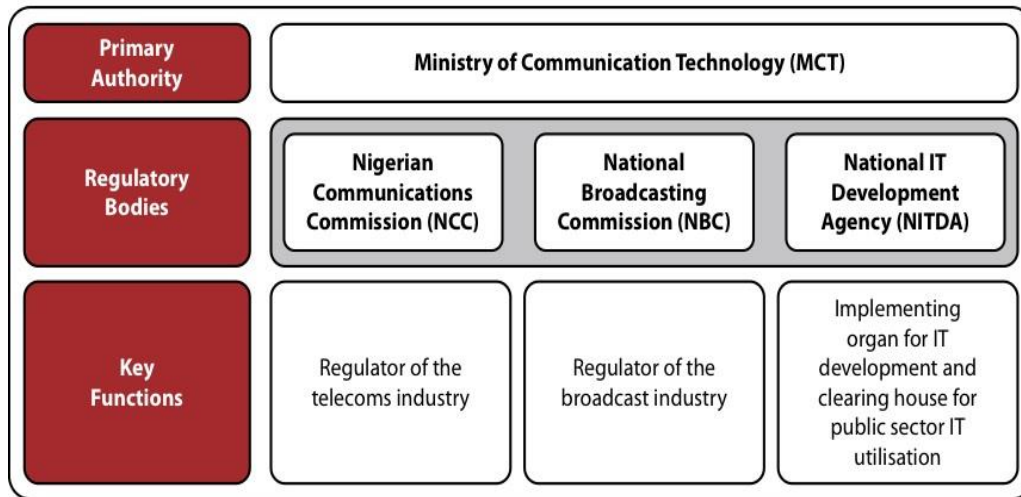


Figure 9.2 Current framework for ICT regulation in Nigeria. Source: Evidence for ICT Policy Action. (Odufuwa, 2012).

## 9.4 Summary

The analysis discussed the political, socio-economic and cultural impacts of ICT on Nigeria since the full liberalisation of the communication industry in 2000, and addressed its challenges with suggested solutions in the following key areas: Communication for quick and easy access, dissemination and sharing of information and knowledge; productivity to improve efficiency, competitiveness, and responsiveness of institutions, firms, and markets; accountability to increase transparency in private and public institutions and in regulatory and policy processes; inclusiveness to increase access to services, information and resources for poor and marginalised groups; and empowerment or grant of a greater voice in the public decision-making process.

Understanding the workings of a communication system produces good governance, which exists when the social contract between the governments and the governed are satisfied. It is achievable with the use of modern techniques of ICT. Putting in place good welfare facilities and up-to-date securities apparatuses for citizens is largely dependent on the financial strength of a given country. According to Steinmo (1993), governments need money, and modern governments need lots of money; how they get this money and from whom they take it are two of the most difficult political issues faced in any modern political economy.



This chapter has presented the methods, questions, and a detailed analysis of the semi-structured interview series and the focus group discussion along with the documentary evidence to complement the survey findings as a triangulation research work. The same set of questions was prepared for the string of interviews and the focus group discussion. The researcher followed the hermeneutical data collection and analysis processes in seeking a conscious political, social, economic, and cultural relationship between the structures and the meaning of the text. Thus, the research has helped in elucidating the sought out answers for the benefits of ICT to governance and the challenges confronting the industry in efficient service provision with the proffered solutions to maximising the full benefits in Nigeria.

The chapter has shown how the concepts that emerged from the questions asked during the interview series assisted in increasing the theoretical sensitivity of the researcher. The common results on the question-by-question analysis of both interview series and the focus group discussion were therefore categorised together under identified themes generated from the answers to more than one question during the data collection stages and the focus group discussion sessions.

The chapter finally presented eight themes that developed through the processed analysis along the dimension of the objectives set for investigating the political, social, economic and cultural impacts of ICT in Nigeria. Challenges in ICT industry in Nigeria also emerged and were discussed in the chapter. Finally the chapter discussed the eight proffered solutions to the challenges of ICT in Nigeria.

With the emergent themes in mind, then, the next chapter brings together the results of the quantitative and qualitative research and presents a model for communication and governance in Nigeria

## **CHAPTER TEN-DISCUSSION OF FINDINGS**

### **10.1 Introduction**

In the previous three chapters, the researcher carried out a detailed analysis of the survey (Likert scale), complementing the semi-structured interviews and focus group analysis as a triangulation of research. This chapter will thus discuss some of the theoretical models related to the research findings and the formal model of ICT and good governance.

### **10.2 Emerging Theoretical Models**

Some of the theoretical models discussed in Chapter 5 of this study were supported by the opinions expressed by the participants in the research (from the ICT sector to other stakeholders), on ICT regulation, monitoring policy and implementation. With a primary objective of the study in mind, to unearth the political, social, economic and cultural impacts of communication (ICT) in Nigeria and discovering the distinct challenges confronting the industry and proffer suitable solutions, the theoretical models, therefore, attempted to correlate and identify ICT impacts in Nigeria governance along key sectors of development. This entails what phenomena are in the communication industry presently and what effects they have on governance. This primary objective was accomplished through systematically analysing data collected through survey questionnaires and a series of interviews and focus group discussion. Also, documentary materials were used to complement the opinions generated in realising the complexities of the topic.

#### **10.2.1 Communication made dissemination of messages easy**

The quantitative and qualitative evaluation of the series of interviews with stakeholders, producers, and consumers of communication products revealed explicitly that ICTs impact every area of human endeavour; learning and communication - government to business (G2B), government to government (G2G), and government to citizen (G2C) are now easier and faster. Both the old and new media remain the instrument of this improvement. As investments in ICT grows, surges expectations rise too, managers and strategists are expected to construct useful business models such as those that improve the decision-making processes for ICT and put in place effective models and measures that exploit these changes. At the same time the introduction of

such measures is also meant to ensure that certain snags associated with the introduction of ICT services are circumvented and the complexities that often accompany new technological interventions avoided (Asgharkhani, 2013).

The introduction of ICT has tremendously improved transparency and accountability in the delivery of information to the public through the websites, reducing information monopoly, simplifying processes and enabling the governed to put obligation on the public officials to deliver performance. These developments in ICTs can be applied to a diverse parameters that govern and organise human existence, they are transforming almost all sectors of society and the economy (Riley, 2000). Digital breakthroughs are producing new possibilities for improving health and nutrition, expanding knowledge, stimulating economic growth, and empowering people to participate in their communities. ICT has also provided individuals with access to learning materials and education available online for academic exercises. Schools and courses now provide distance-learning possibilities as a result of ICT related steps taken for the sake of development.

The model was generated based on the discourse at the focal group discussion, coupled with literature from documentary evidence on the impact of ICT on political communication and activities that revealed the strategic importance of ICT to citizens in the mobilisation of the electorate and the participation in governance at different levels. The views of participants further stressed how the old and new media provided a converging platform for views and opinion sharing up to campaign for legislative seats and even lobbying at policy levels. Participants emphasised the relevance of e-governance in policy formation and dissemination that leads to public action.

Analysis of the semi-structured interview revealed the tremendous impacts of ICT to the socio-economic developments in Nigeria. Virtually all the interviewees agreed that all facets of the Nigeria social and economic lives have been positively touched by ICT. There is a significant technological revolution that is transforming our society in a profound way. If this is harnessed and directed properly, ICTs have the potential to improve all aspects of Nigerian social, economic, and cultural life. ICTs can, therefore, serve as catalyst for development in the 21st century (Annan, 2002). There is a consensus among development agencies and academics on the inherent role of electronic commerce (e-commerce) in socio-economic development. The use of the

Internet and other related ICTs to conduct business transactions is increasing in private, public and not-for-profit sectors in both industrialised and developing countries. The potential value of e-commerce has received boundless coverage in research and trade publications with reportage of several successful e-commerce stories (Mukti, 2000; Berrill et al., 2004; Grandson and Pearson, 2003, 2004).

The ethnographic analysis of the data helped to identify the model on ICT and culture in Nigeria. The consumers of ICT services relayed the contributions of the new media in the transformation and development of some culture in parts of the country. Some participants argued that some cultures were indeed hiccups for information dissemination. "Information and communication technology devices have remained valuable means in accomplishing day-to-day personal and professional tasks satisfactorily," said one of the focus group participants.

Because humans do not live in isolation and therefore finds themselves disseminating information or engaging in communication, ICT regularly becomes a necessary instrument to accomplish these tasks. It is also a fact that the Nigerian society has experienced technological transformation. This notwithstanding, ICT products at various developmental stages may not be said to have gone into full use in all areas. In fact, Aziken and Emeni (2010) argue that although the traditional systems of communication may be old and diverse in their principles from the new ones, they remain what sustain the information demands of the rural population. The modern ICTs such as the Internet, satellite television network, and mobile telephony have been adopted in Nigeria; reception is yet to be everywhere. However, they could be said to be in use both in the rural and urban settlements with greater patronage in the developed areas. This is because traditions and local culture in parts of Nigeria hinders the reception of new technologies.

Analysis of the semi-structured interview and the focus group discussion also revealed the impacts of ICT on agricultural activities in Nigeria. The participants during the focus group discussion emphasised the importance of weather advice on seasonal cropping and also stressed the relevance of ICT to market facilitation.

Both the quantitative and qualitative analysis of the findings indicated significant impacts of ICT to education in Nigeria and the world. Interview and focus group analysis revealed the tremendous impacts to knowledge sharing through e-learning.

The analysis of the semi-structured interview and the focus group discussion showed two-way impacts of ICT product in the area of security, which is both bad and good. A combination of both quantitative and the qualitative analyses of the data, coupled with relevant literature revealed the level of ICT benefits and challenges globally.

### **10.2.2 Achieving good governance through efficient ICT services**

According to Kumar (2015), good governance is crucial, and e-governance is instrumental. Good governance dictates the pattern and shape of e-tools or e-governance for improving governance outcomes and processes. ICT (e-governance) remains an effective and efficient tool for proper management if the necessary steps are taken to address the challenges facing the communication industry. Such as process re-engineering, effective implementation of the e-governance policies, the fight against corruption and also against malware and viruses, tax reduction and cost of services, adequate capacity building, government creation of an enabling environment for operators, expansion of services to rural areas, and efficient regulatory service. The current state of ICT service in Nigeria, where challenges such as malware, spyware, and Internet fraud are prevalent, coupled with poor network operations and bureaucratic corruption and other factors, will seldom enable governance to maximise the benefits of ICT for a developmental agenda. For effective development in the ICT sector it has been recommended that public and private enterprises join hands, so that pace of implementation of ICT projects can be enhanced and sustainable development can be ensured. The integration of ICT with the state government can be understood as a step in this direction, with e-governance as a major intervention in this area. Additionally the adoption of ICT in the education sector and its applications also constitute an important step for the growth of the sector (Adu, Adelabu, and Adjogri, 2014). Good governance will exist when the social contract between the government and the governed are satisfied; putting in place modern ICT would help to facilitate welfare facilities and up-to-date securities apparatuses for citizens who primarily depend on the financial strength of that country.

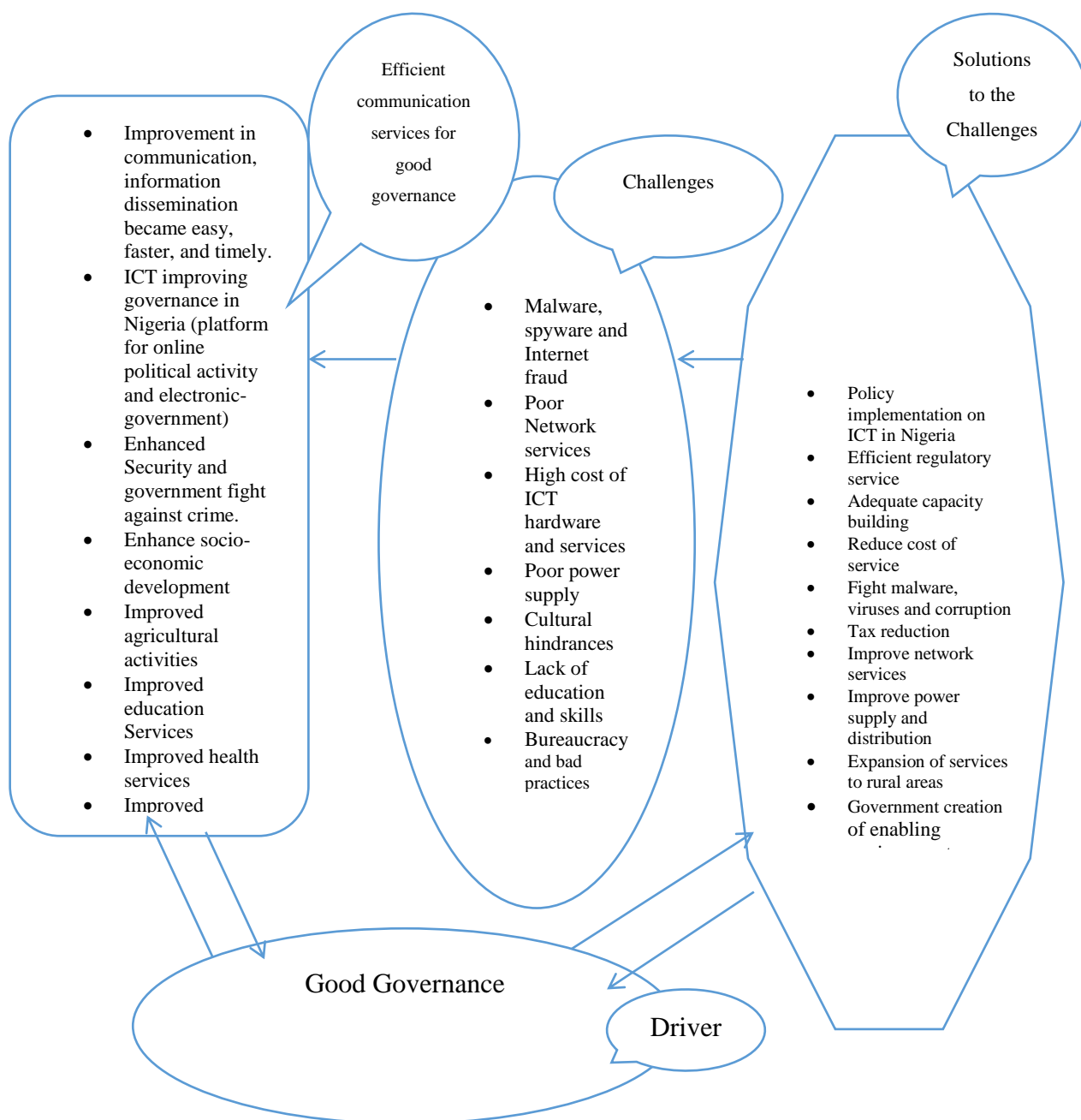


Figure 10.1 ICT and good governance model: Achieving good governance is a function of efficient ICT services. Source: author.

### **10. 3 Summary**

This chapter discusses and summarises the findings on communication and governance through a triangulation of the hermeneutical analysis of the survey data and the interviews/focus group session. The findings thus reflect the opinions of the executive managers, directors, stakeholders, and users of ICT products. The study revealed the impacts of ICT to developments and also showed the challenges facing ICT services in Nigeria and suggested solutions to tackle the problems. As developed in the study, the chapter discussed a formal theoretical model for ICT and good governance as illustrated in Figure 10.1. It is obvious that achieving good governance is a function of efficient ICT services. It shows the interconnectivity between good governance and well-being, good governance being a driver for the challenges and solutions as well as for efficient ICT services.

## **PART IV: CHAPTER ELEVEN: CONCLUSIONS, IMPLICATIONS FOR THEORY AND PRACTICE, LIMITATIONS, CONTRIBUTIONS, AND SUGGESTIONS FOR FUTURE RESEARCH**

### **Conclusions:**

#### **11.1 Introduction**

This thesis has investigated the phenomenon of communication governance, with particular reflection on the impacts of information and communication technology, in today's world and the developing countries using Nigeria as a case study. Through triangulation, the researcher was able to use the process of both quantitative and qualitative in the data collection and systematically analysed the survey, interviews, focus group discussion and documentary materials gathered from the information and communication ministries and other stakeholders to arrive at the conclusions. The analyses led to the construction of a theoretical model for the enhancement and understanding of the full impacts of communication in governance in Nigeria.

The research was undertaken with the utmost reflexivity and rigour, to understand the full breadth of knowledge resources available on communication and governance in Nigeria thoroughly. This included looking reflexively at the various parameters of the self while conducting the process of acquiring data. Reinharz (1997) pointed out that the disparate and multiple individuals are profoundly influenced by the social environment. Hence, the self-involved in the activities of the research, such as acquiring information is not singular, but instead fraught by the development and alterations being instrumented in the self during the process of the study. The data collected and the information gathered was analysed in the context of the geographical and socio-political context of Nigeria and its inhabitants, this involved keeping in cognisance the emotional entanglements of the respondents, the location chosen for the study and realising that such preoccupations define the process of the research.

**As noted in Chapter 1: The researcher has successfully addressed the set objectives, which would also be useful source material for future research findings.**



In drawing conclusion based on the objective of the findings, challenges related to the communication services were identified, while also showing ICT and the different issues of cultural, political, social or economic life in Nigeria. Thus, from the study, it is understood that both the internal operators and ICT providers along with the stakeholders are responsible for the communication services in Nigeria. The research findings have also provided more explicit knowledge of the workings and nature of ICT in the context of Nigeria. In achieving these, efforts were made to reach the different stakeholders related to the communication industry to complete all the initial questionnaires designed to identify the bureaucratic challenges associated with information and communication sector visa-a-vis ICT and the consumers. Other issues identified in the communication industry are related to high tariffs, inadequate coverage of rural areas, corruptions, weak regulations, lack of technical know-how, etc.

The different challenges confronting ICT in the country as identified by the research were traced to different governance policies and political activities. The research appraised the changing patterns of the social and cultural relations along with the developmental goals of the nation. By the gathered results of the study, it is apparent that ICT serves as a bridge to boundaries or territories while providing unbiased knowledge and information on diverse entities in the country. However, from the study, it is shown that Nigeria as a nation has continued to maximise the opportunities and advantages which are provided by the education and products of ICT. Though a massive investment has been put into ICT capacity building and infrastructure, the country is still very much digitally isolated from the global village due to various challenges.

A closer look at the outcome of the research reveals certain demurs such as lack of critical strategies and the drive to harness the full potentials of ICT for socio-economic development of the nation. Some of the responses from the questionnaires for the study pointed at other challenges such as malware prevalence, Internet fraud and spyware quandary. These are serious issues that hinder progress and the full benefits of ICT in Nigeria. There are additional issues such as poor quality of ICT services provided for the consumers by the operators such as Airtel, MTN and Globalcom. The cost of ICT

hardware is another issue that has impaired benefits of the products for most users. The price of hardware or software in ICT needs to be reviewed downward for consumers to allow more accessibility. Inadequate power supply remains a perennial problem in the country, thus, negatively affecting, socio-economic activities.

All the stakeholders associated with ICT and its allied branches will be enlightened through this study just as the corporate social organisations and the government can also use the results of the study for policy formulation. The study has suggested the need to focus on the expansion of the scope of ICT in the country to enhance the level of governance. All in all, the research fulfilled the objective of the study related to building a theoretical model for communication governance while showing the impacts of ICT in governance and proffering solutions to the challenges facing the communication industry. This is addressed through recommendations on better information and communication technology policy implementations and practices geared towards fighting malware and viruses through co-operative networks, reduction of the tax burden on ICT providers, improvement of networks services and building adequate capacity through infrastructure development.

The research examined the existing literature in the field of ICT in Nigeria and critically identifies gaps and shortfalls in the existing studies and makes an attempt to address them. The study therefore contributed and added to the existing literature on the impacts of ICT on governance in Nigeria with a thorough research on the subject and proposed a theoretical framework that can be implemented to enhance the connectivity and performance of information communication networks for good governance.

In addressing the objective of the study related to providing valuable suggestions for the improvement of ICT services, the researcher offered valuable remedies for the present services such as redefining the processes as well as the introduction of novel services in Nigeria. The study also defined the role of the government in information and communication networks facilitation and management. The Federal Ministry of Communication Technology (FMCT) and the Federal Ministry of Information and Youth Development (FMIYD), with their parastatals, were therefore advised to frequently review and establish the needed special ICT products and collaborate with

international agencies for courses/programmes and projects that would provide skill training and opportunities for people in various research fields. The study also recommended an efficient power distribution to the key sectors germane for proper implementation and utilisation of ICT.

The study further suggested that the resources siphoned by public officers and recovered by the government agencies such as the Economic and Financial Crimes Commission (EFCC) established to fight corruption, should be re-invested or ploughed back into the economy. The recovered funds will help to further strengthen power supply to the ICT industry particularly in the rural and urban areas in Nigeria.

It is evident from the present study that ICTs are transforming the politics in Nigeria and that they can be instrumental in undertaking large scale metamorphic changes that will lead to an overhaul of relevant actors and issues in Nigeria and the global politics. In addition to this, ICTs have affected other key areas such as the socio-economic environment, education, health, and security in Nigeria. This study showed that with comprehensive policy in place to address the challenges in the industry, ICT would provide a sound platform for good governance in Nigeria.

This final chapter offers some conclusions based on the research conducted and the theory, and also discusses the contributions the study has made to the existing body of knowledge in the field. Drawing on the findings, the chapter offers solutions for the achievement of good governance taking into consideration the challenges debilitating the ICT industry and hampering its growth. The final part of this chapter deals with some of the identified limitations of the research, new contributions to knowledge and recommendations for future research in certain areas.

With the outcome of this research, we can aptly say that ICTs are contributing, impacting and empowering people and the economy of nations of the world, such as Nigeria in the last two decades by improving the lives of its citizens. The global world has benefited tremendously from the opportunities provided by ICT. Humanity, therefore, has to embrace the new technologies.

National poverty reduction strategies or sector-specific policies, with local communities – ownership, partnership and networking driven - are keys to effective poverty mitigation. This will thus encourage donors to look for implementers of their visions along with partners to support them in implementing development strategies.

Economic globalisation and the new ICTs are seen as the engines of modern global economy driving a new information world order in which large parts of the continent of Africa need to make progress to keep up with global growth levels (Etta & Parvyn, 2003). In the contemporary information age, Nigeria as a nation cannot afford to lag behind, but rather should rise towards utilising the technological interventions such as those made by smartphones and the advantages they offer for national development. The time to do so is now.

In Western democracies, the increasing use of communication technologies and the expertise across the range of governmental operations signal a dramatic shift in how political communication can be defined and understood.

Hitherto the system of political communication has been more or less understood to consist of construction, distribution, and reception of political information for the purposes of constructing alliances, winning consent, and creating meaning. In this formulation, political communication is viewed as a medium or conduit through which information is conveyed and exchanged. Messages are simply transferred from sender to receiver with the presumption that the sender's sense of "meaning" remains relatively intact. Significant asymmetries and distortions in this exchange are taken to be symptomatic of the pathology of propaganda.

## **11. 2 Theories and Practice**

ICT also delivers social benefits and access to information in disadvantaged and backwards countries by providing them with new opportunities for development and platform for democracy. Information and communication technologies encourage social participation and social activity in the sustainable development process and benefit poor populations by equipping them with opportunities for e-health and e-learning.

Information and communication technologies afford exceptional access to information and facilitate people from throughout the world to communicate in real-time via

services like conference calls, video, instant messaging, voice over Internet protocol (VoIP), social networks, and email. ICT also helps enterprises, governments, and different organisations to file, process, and share data with each other with one snap.

The practical implications for ICT and related developments are wide-ranging and open up a considerable options for inroads to be made in these areas, these include both practical and theoretical interventions. In terms of real-world applicability the developments in ICT can instrument a range of progressive changes in pivotal sectors such as the education sector. This includes providing access to individuals living in remote areas through the means of internet technology, this will include ensuring that relevant learning materials and tools are within their reach and eventually help them in aspiring for academic success. Additionally the introduction of ICT in the education sector will help in making education feasible for a large number of youth, both financially and in terms of overcoming distance related hardships.

In addition to the above the ICT industry is in itself a major contributor to the overall economy and also generates significant opportunities for providing employment to the native population. This includes work profiles such as those associated with the fields of engineering, and the development of relevant infrastructure and the recruitment of skilled professionals for these tasks. Hence the models for the development of ICT discussed in the present study can eventually be used for the development of further models and policy frameworks that will lead to the growth of the industry in the region and be a significant source for real world implications in the year.

### **11. 3 Limitations**

The data collection for this research focused on the period from the liberalisation of the industry in 2000 to 2017. This may have limited the understanding of the communication governance events studied. Moreover, some of the respondents might not have worked in the sector before the liberalisation era, while others may not have been involved in critical areas of governance. Nevertheless, these limitations were minimised through the use of broad range of professionals interviewed and the focus group discussion. Also, some reports were obtained from the information and communication industry to complement the interviews, and these provided valuable insights into the communication and governance practices in Nigeria.

It was hard to access data in the Federal government ministries, just as it was difficult reaching the stakeholders in the communication industries to respond to the initial questionnaires, which was intended to sensitise the targeted participants and also to gain access to the interviewees. The challenge of bureaucracy, particularly in the government ministries and their parastatals, was overwhelming. While some directors completed the questionnaires and also expressed their readiness to participate in the interviews on the proposed dates, other officials did not react to the request, or did not provide detailed responses.

Due to the limited range of similar studies in the present area the present study did not have a relevant precedent and had to rely on the researcher's perception and judgement with no available theoretical or practical models for organising the study. The course study was developed in consideration with the researcher's abilities, access to resources and judgement. This was a primary consideration that influenced the entire process of the research, from the formulation of the objectives, to the data collection processes selected and the sampling for the study. The fact that the study was carried out independently has been a significant governing parameter that cannot be ignored in trying to evaluate the shortcomings of the study.

Funding was also a challenge. There were cost implications in every service rendered during the data collection. Cognisant of the fact that the research was self-sponsored which proved to be a determinant factor due to which the range and extent of the research conducted was limited. This affected the sampling size of the study and the range and scope of the data collected during the research. Hence the range of population selected for the survey and questionnaire based analysis was affected by these considerations. Hence the present study can be replicated in a larger study with access to more resources in order to derive more accurate results and conclusions. Additionally, because of the lack of external funding for the project the researcher had to undergo financial sacrifice that will take a while to recover.

## **11.4 Contribution to Knowledge and Additions to Existing**

### **Literature**

The research has come up with some contributions at the methodological, theoretical and empirical levels. From the literature review undertaken in Chapter 2 of the thesis, a gap in the body of knowledge concerning the lack of research addressing the

phenomenon, communication and governance in the context of ICT impacts in the political, social, economic and cultural life in Nigeria was identified. Also in the literature review, the vital role of communication in governance in administrations as articulated by significant figures associated with the western metaphysical tradition was described.. Cicero, Quintilian, Petrarch, and Machiavelli were highlighted, as their contributions to human history became evident. So also was Marcus Tullius Cicero's writings in the area of politics and rhetoric for the Italian Humanist and Renaissance culture, which cannot be ignored. Hence, adding new knowledge to the rhetorical tradition and the practical art of communication and everyday discourse in addressing and guiding decisions and judgment is important.

The researcher used triangulation as methods to show the impact of ICT in the socio-political, economic and culture development in Nigeria, discovering the challenges facing the industry and suggesting necessary solutions oriented towards overcoming the identified problems and concerns. Triangulation on communication, governance, and hermeneutics are the trajectories in the research. With these three mentioned nomenclatures, the researcher succeeded in using hermeneutics to show that the phenomenon of communication and governance in an unexplored context in the explanation of the impacts of ICT in key societal areas that are functions of good governance. Thus further study in this area would serve to advance the knowledge related to the theory of communication governance.

The thesis is the first attempt at blending the three domains of communication, governance, and hermeneutics in the context of Nigeria. Indeed, this adds to the novelty in the research, as it discusses several significant conceptualisations that require revisiting theoretical underpinnings using a methodological approach governed by hermeneutics that force the researcher to look past the exterior. This applies to every potential study before the emerging of the final model by an interpretation and data-supported proof. Through this investigating, communication governance is context clear. The triangulation is a response to calls to investigate essential proof that can inform and improve practice.

This study makes a well-defined contribution in the exploration of cultural barriers and makes the affirmation that culture does impair communication in some parts of Nigeria, and can be understood as a complicating parameter that needs to be dealt with

effectively. Culture hinders social and political interactivity in some regions in Nigeria as well as in the receptivity of ICT products and programmes, such as in television and mobile telephony. As revealed in the findings, the general perceptions of the gender of the technology itself (i.e., it has cultural colouration) shaped people's opinions about e-government. A perceived blending of ICTs with women's work (i.e., secretarial and administrative roles) led to the view of e-government provision as a female domain. Such views have impacts on the acceptance of e-government provision. Hence, the cultural relativism of the environment needs to be taken in consideration when suggestions for ICT related developments are made and measures are introduced.

It is abundantly clear from the findings that ICT is an instrument of good governance, which is driven by policies of the government. The efficient and inefficient ICT service and use is a measure of good governance.

### **11.5 Recommendations for Future Research and Policy**

The findings can be considered a starting point for other researchers on communication as a tool for good governance, particularly in Africa. Other researchers may as well explore culture hiccups in communication receptivity in parts of Africa. The results of this research have also opened up more challenging areas for researchers, such as looking at oratory, rhetoric, or persuasive communication as a tool for good governance.

Other recommendations for future research in the area include the options of conducting surveys with a larger sample that includes the rural populace such that the health related concerns associated with the interventions of new technologies can be considered. This will allow for the government to review the health related consequences that follow the introduction of ICT, and take necessary preventive measures. There is also a need to examine the nature of the demographic and geographic region specific concerns that the implementation of ICT encounters. These include examining existing barriers such as those related to feasible costs that hamper the effective implementation of ICT by Small and Medium-sized Enterprises (SMEs). Other such hindrances include the lack of trained staff, and the absence of adequate resources and other factors that prevent the adequate implementation of ICT in private and government enterprises. Other recommendations that need to be worked on include the need for adequately skilled IT staff and the engagement needed to



resolve language barriers in the environment. The implementation of ICT within the transportation industry can also be explored in further research studies, since it constitutes a major contributing area to the overall economy of the country.

One such inclusion in the use of ICT in road freight transportation in the region and its use by the Nigerian petroleum industry for its downstream operations (Ogu, Kumar and Cullen, 2017). The use of ICT by such industries can be explored in further studies using a similar framework as the present one, so as to understand the wide-ranging impact ICT has had in the region and the various operative industries. Such research will be useful in determining the further scope for ICT related growth interventions and also help in understanding the cost of such development so that steps can be taken to minimise it.

One significant prospect for further research is offered by the present study itself, as it can be replicated on a larger scale in order to provide an even more detailed insight into the subject and to understand the nature of the impact that ICT has had in the governance mechanisms and otherwise in the region.

The managers of Nigerian educational system especially the professional librarians should view ICT as a complementary tool in the development and dissemination of information and should not be a replacement of the traditional library. Even today, in its infant state, as revealed by Ebeniro (2000) the Internet is the largest library, bookstore, disposal house, and art gallery in the world. No human can digest it at all.

Good governance exists when the social contract with the governments and the citizens are satisfied, and it is achievable applying the modern technique of information technology.

It is now evident from the findings, as in theory and practice, that the full benefits of ICT can only be maximised for governance and socio-economic empowerment of the citizenry if the proffered solutions are applied at ICT policy level to address the challenges confronting the industry.

The investigation tends to focus on ICT impacts in governance. This calls for future research on the impacts of print communication as a tool for socio-economic development in Nigeria.

A solid position can be taken in support of selective ICT use for poverty alleviation. To realise this, Nigeria government has to put in place a robust local ICT sector, encompassing all features of ICTs to ensure the full utilisation of its capacity in the fight against hunger. Using information communication technologies (ICTs) for poverty reduction are more effective when embedded and synchronised with other policies and resources, in a conducive atmosphere, which includes freedom of expression, competitive markets, autonomous regulators, a common service fund and other elements.

In the absence of any mechanism, the government should develop programs that create awareness on the benefits of ICT and sensitise the people on the best ways of utilising ICT facilities at their disposal.

The research looked more on the positive impacts of ICT on governance and development; it will be rewarding to investigate more of the societal aspects of ICT, which explores the negative impacts of information and communication technologies on the society and positive sides of its use in the society.

The introduction of ICT has turned the world into a "global village" connecting people, organisations and markets all over the world into a competitive international market. However, can the less developed nations of the world adequately compete with ICT advanced nations? It is a research question for the future.

The application of the proffered solutions will improve communication (ICT), and good communication leads to good governance.

## List of References

- Abbott, C (2001). *ICT: 'Changing Education'*, Routledge Falmer: Place of publication: London. Publication year: 2001. Page number: iii
- Abbott (2007) Annual Report-'The True Cost of Healthcare'.  
[http://truecostofhealthcare.org/wpcontent/uploads/2015/01/Abbott\\_Report\\_2007.87102217.pdf](http://truecostofhealthcare.org/wpcontent/uploads/2015/01/Abbott_Report_2007.87102217.pdf)
- Abramson, A. (1955) 'A short history of television recording', *Journal of the SMPTE*, vol. 64 (in Shiers q.v.)
- Abiye Tob-Ogu, Niraj Kumar, John Cullen (2017). 'ICT adoption in road freight transport in Nigeria – A case study of the petroleum downstream sector, Technological Forecasting and Social Change', 2017, ISSN 0040-1625,  
<http://www.sciencedirect.com/science/article/pii/S0040162517312568>
- Adesanya, O. (2002). 'The impact of information technology on information dissemination'. In Madu, E.C. and Dirisu, M.B. (Eds.). *Information science and technology for library schools in Africa*, Ibadan : Coleman. Pp.10-24.
- Adeya, C. N. (2001). 'Information and communication technologies in Africa', A review and selective annotated bibliography 1990-2000. Oxford, UK: INASP.
- Adler, P. S. (2012). 'Perspective the sociological ambivalence of bureaucracy: from Weber via Gouldner to Marx'. *Organization Science*, 23(1), 244-266
- Adu, E. O., Adelabu, O., & Adjogri, S. J. (2014). 'Information and Communication Technology (ICT): The implications for sustainable development in Nigeria'. In *EdMedia: World Conference on Educational Media and Technology* (pp. 50-58). Association for the Advancement of Computing in Education (AACE).
- African Information Society Initiative (AISII) (2006): 'An Action Framework to Build Africa's Information and Communication Infrastructure': United Nations Economic Commission for Africa, 1996
- African Information Society Initiative (AISII) (2005). 'AISII Connect Online Database'. Accessed on 29 May 2017 from:  
<https://www.uneca.org/sites/default/files/PublicationFiles/aisiplus10.pdf>
- Aginam E, vanguard, (2016), '9% tax on ICT will threaten Nigeria's 30% broadband penetration by 2018.' Retrieved on 07 February 2017  
<http://www.vanguardngr.com/2016/05/9-tax-ict-will-threaten-nigerias-30-broadband-penetration-2018-a4a1/>
- Agyeman (2007), 'ICT for Education in Nigeria. Survey of ICT and Education in

Africa': Nigeria Country Report. Accessed 16 December 2015: from [www.infodev.org/en/Document.422.pdf](http://www.infodev.org/en/Document.422.pdf)

Aina, L.O., Kaniki, A.M., & Ojiambo, J.B. (1995). 'Agricultural information in Africa. Ibadan: Third World Information Services'. Preface in Aina, L.O., Kaniki, A.M., & Ojiambo, J.B. (Eds),

Ajala I. (2005). 'Article on GIS and GSM Network Quality Monitoring: A Nigerian Case Study'. Accessed 07 April 2017: <https://www.directionsmag.com/article/3081>

Akomea-Bonsu, C., & Sampong, F. (2012). 'The impact of Information and Communication Technologies (ICT) on Small and Medium Scale Enterprises (SMEs) in the Kumasi Metropolis, Ghana, West Africa'. *European Journal of Business and Management*, 4(20), 152-158.

Akpan-Obong, P., Thomas, C. A., Samake, K. D., Niwe, M., & Mbarika, V. A. (2009). 'An African pioneer comes of age: Evolution of information and communication technologies in Uganda'. *Journal of Information, Information Technology and Organizations*, 4, 147-171.

Akpore, A. S. (1999). 'Free expression in age of the Internet: Social and legal boundaries'. Boulder: Westview Press.

Alabi, G.A. (2004). 'Empowering Socio-economic development, utilizing information technology: a critical examination of the social, economic, technical and policy issues in Nigeria'. Retrieved on 07 Feb 2017 <http://www.uneca.org/aisi/nigeria2.html>.

Alchian and Demsetz (1972), 'Production, Information Costs, and Economic Organization Economic Organization': *The American Economic Review* Vol. 62, No. 5 (Dec., 1972), pp. 777-795

Alemna, A. A. (2000). 'Libraries, Information, and Society'. Accra: Ghana Universities Press. Pp. 20.

Alexis A & Karampatzos K (2011) 'Negotiation and Aristotle's Rhetoric: Truth over interests?', *Philosophical Psychology*, 24:6, 845-860, DOI: 10. 1080/0951 5089.2011. 569910

Alvesson and Sköldbberg Alvesson and Sköldbberg, (2000). "Reflexive Methodology: New Vistas for Qualitative Research". SAGE Publications, 2000

Anderson, R. & Ross, V. (2002). "Questions of Communication" 3rd ed. (J. Bartlett, Ed.). Boston: BedfordJSt. Martin's.

Annan, K. (2002). 'Information and communication development': Information society summit. P.7.

- Anyakoha, M.W. (1991). 'Basic librarianship: Modern technologies in information work'. Owerri: Totan publisher, Pp. 106-108.
- Arnould, E.J. (1998), 'Daring consumer-oriented ethnography', in Stern, B. (Ed.), *Representing Consumers: Voices, Views and Visions*, Routledge, London.
- Apel, K.O. (1973) 'Transformation der Philosophie', Frankfurt, Suhrkamp. Beck, U.,
- Aristotle (1926/2000). 'The "art" of rhetoric' (J. H. Freeze, Trans.). Cambridge, MA: Harvard University Press.
- Arokoyo, T. (2005). 'ICTs Application in Agricultural Extension Services Delivery, Agricultural Extension Society of Nigeria'. (1)13-14.
- Arrow, K. (1963). *Social choice and individual values*. New Haven, CT: Yale University Press.
- Arugu, L.O and Chigozie C.F (2016), 'Information and communication technology (ict) application in social and political system', *European Journal of Research in Social Sciences*: Vol. 4 No.1, 2016 ISSN 2056-5429.
- Ascroft, J. & Masilela, S. (1994). 'Participatory Decision Making in Third World Development'. In: WHITE, S.A., NAIR, K.S. & ASCROFT, J. (eds.), *Participatory Communication: Working for Change and Development*, New Delhi: Sage, pp. 259-294.
- Asgarkhani, M. (2013). 'Corporate ICT governance: A tool for ICT best practice'. In *Proceedings of the International Conference on Management, Leadership and Governance* (Vol. 1, pp. 1-8).
- Asist Panel (2002). 'Bridging the Digital Divide as Capacity Building for the Information Economy', Retrieved on 08 February 2017  
<http://onlinelibrary.wiley.com/store/10.1002/meet.1450390193/asset/1450390193 ftp.pdf?v=1&t=iyx3dsbv&s=f18fabbc1b5775e4e06851e6e546874b457d2af>
- Atkinson, P. and Coffey, A (2011) 'Analysing documentary realities', In D. Silverman (ed.), *Qualitative Research Issues of Theory, Method and Practice* (pp.77-93), 3rd edition, London: Sage.
- Awe, (2010). 'Public Private Partnership (PPP) in ICT for Development in Nigeria', 'Nigerian Information Technology Development Agency (NITDA)', 2010.
- Ayres J. (1982). 'Perceived use of evaluative statements in developing, stable, and deteriorating relations with a person of the same or opposite sex'. *Western Journal of Speech Communication*, 46(1), 20-31.

- Aziken, L. C. & Emeni, C. A. (2010, December). 'Traditional systems of communication in Nigeria': a review for improvement. *Knowledge Review*, 21 (4), 23-29. Retrieved October 03, 2017 from <http://www.globalacademicgroup.com/journals/knowledge%20review/traditional%20systems%20of%20communication%20in%20nigeria.pdf>
- BBC (2003) 'E-voting fails to stir the public, BBC News On-line', <http://www.news.bbc.co.uk/1/low/technology/2995493.stm>.
- Baker, W. E., and Sinkula, J. M. (2009) 'The Complementary Effects of Market Orientation and Entrepreneurial Orientation on Profitability in Small Businesses'. *Journal of Small Business Management* 47(4) : 443-464.
- Bannister F, Walsh N. (2002) 'E-Democracy. Small is beautiful?' In Proc. 2nd European Conference on E-Government, Dan Remenyi (Ed.), MCIL, Reading, pp 49-65.
- Barabasi, A.L (2002) 'Linked: The new Science of Networks', Cambridge, and M.A.
- Baran, P. (1964). 'On distributed communications networks',: *IEEE Transactions on Communications Systems*, 1 March.
- Barnett, M. and Duvall, R. (2005) 'Power in global governance', in M. Barnett and R. Duvall (eds.), *Power in Global Governance* (pp.1-32), Cambridge: Cambridge University Press.
- Barney. R (2010), 'Gorgias' defense: Plato and his opponents on rhetoric and the good': *The Southern Journal of Philosophy*:2010 <https://doi.org/10.1111/j.2041-6962.2010.01007>.
- Baro E. (2011) 'A survey of information literacy education in library schools in Africa', *Library Review*, Vol. 60 Issue: 3, pp.202-217, <https://doi.org/10.1108/00242531111117263>
- Bartlett, A. (2002), 'ICT and IMPM. In Farmers, FAO and Field Schools'. Rome: FAO.
- Barzelay, Michael (1993) 'The Single Case Study as Intellectually Ambitious Inquiry', *Journal of Public Administration Research and Theory*, 3(3):305-318.
- Bates, A. W. (2005). 'Technology, e-learning and distance education', (2nd ed.). New York: Routledge Falmer.
- Baudrillard, J. & Poster, M. (1988). 'Selected Writings'. Cambridge: Polity Press.
- Baxter, L. A. (2004). 'A tale of two voices: Relational dialectics theory'. *The Journal of Family Communication*. 3(4), 181-192.

Baxter, Leslie A. (Ed); Braithewaite, Dawn O. (Ed), (2008). 'Engaging theories in interpersonal communication': Multiple perspectives.(Pp. 161-173). Thousand Oaks, CA, US: Sage Publications, Inc, xi, 423 pp. Bourdieu P, (1990), *The Logic of Practice*, Cambridge, polity Press.

Bellah Robert N. (1975). 'The Broken Covenant: American Civil Religion in a Time of Trial',; New York Seabury Press

Berle, A. and Means, G. (1932): 'The Modern Corporation and Private Property', Macmillan, New York.

Berrill, A., Goode, S. and Hart, D. (2004), 'Managerial expectations of internet commerce adoption after the tech wreck', *Journal of Global Information Technology Management*, Vol. 7 No. 3, pp. 45-63.

Bershadskaya, L., Chugunov, A., & Trutnev, D. (2012), ' e-Government in Russia: is or seems?'. In *Proceedings of the 6th International Conference on Theory and Practice of Electronic Governance* (pp. 79-82). ACM.

Bimberg, J. and Snodgrass, C. (1988) 'Culture and control: A field study', *Accounting, Organizations and Society*, 13(5), pp.447-464.

Bingham, L. B., Nabatchi, T., & O'Leary, R. (2005). 'The new governance: Practices and processes for stakeholders and citizen participation in the work of government'. *Public Administration Review*, 65, 547–558.

Black, E. (1994). 'Plato's view of rhetoric'. In E. Schiappa (Ed.), *Landmark essays on classical Greek rhetoric* (pp. 83–99). Davis, CA: Hermagoras. (Reprinted from *The Quarterly Journal of Speech*, 44,361–374, 1958)

Blaikie, N. (1993), 'Approaches to Social Enquiry', 1st ed, Polity Press, Cambridge.

Blau, Peter M., and W. Richard Scott (1962) 'Formal Organizations: A Comparative Approach'. San Francisco: Chandler.

Bloch, C. (1996) 'Emotions and discourse', *Human Studies*, 16(3), pp.323-341.

Blumer, H. (1969). 'Symbolic Interactionism: Perspective and Method'. Englewood Cliffs, NJ: Prentice-Hall.

Blumler, J. G., & Kavanagh, D. (1999). 'The third age of political communication: Influences and features'. *Political Communication*, 16, 209–230.

Boafo, K.S.T. (2006). 'Participatory Development Communication: An African Perspective in Bessette', G. (ed). *People, Land and Water*. [www.idre.ca/en/ev-98617-201-1-00-topic.html](http://www.idre.ca/en/ev-98617-201-1-00-topic.html)

Bogdan, R. and Taylor, S. (1975) 'Introduction to Qualitative Research Methods', New York: John Wiley.

- Bohmam J. (2006), 'Deliberative Democracy and the Epistemic Benefits of Diversity' Volume 3 Issue 3 October 2006 COPYRIGHT: © Cambridge University Press 2006.
- Donner J. (2005) 'Center for Global Health and Economic Development', The Earth Institute at Columbia University 215 W. 125th St., Suite 301 New York, New York 10027 jd2210@columbia.edu.
- Boyatzis, R. (1998) 'Transforming qualitative information: Thematic Analysis and Code Development', Sage, Thousand Oaks, CA.
- Boyatzis, R. E. (2009). 'Transforming qualitative information: thematic analysis and code development'. Thousand Oaks (Ca.): Sage Publications.
- Boyle, J. S. (1994) 'Styles of ethnography', in J. M. Morse (ed.), *Critical Issues on Qualitative Methods* (pp.159-85), Thousand Oaks, CA: Sage.
- Briggs, A. R., Coleman, M., & Morrison, M. (2014). 'Research methods in educational leadership & management'. London: SAGE.
- Brown, L.M. and Gilligan, C. (1992), 'Meeting at the Crossroads: Women's Psychology and Girls' Development. Cambridge, MA: Harvard University Press.
- Bruce, O. (1995). 'Internet with a difference: Getting people hooked up'. Available: [www.zwren.org.zw/publications/information](http://www.zwren.org.zw/publications/information).
- Bryman, A. and Bell, E. (2007) 'Business Research Methods', 2nd edition, New York: Oxford University Press.
- Bryman, A., Stephen, M. and Campo, C. (1996). 'The Importance of Context: Qualitative Research and the Study of Leadership'. *Leadership Quarterly*, 7(3), 353-370
- Bulsara, C. (2015). 'Using a mixed methods approach to enhance and validate your research'. Brightwater Group Research Centre.
- Burgoon, J. K. (1976). 'The Unwillingness-To-Communicate Scale: Development and Validation'. *Communication Monographs*, 43(1), 60-69.  
DOI10.1080/03637757609375916
- Burke, K. (1959). 'Attitudes toward history', (2nd rev. ed.). Los Altos, CA: Hermes Publications.
- Burt, S. L., Sparks, L., and Teller, C. (2010) 'Retailing in the United Kingdom – a synopsis'. *European Retail Research (ERR)* (24:1):173 - 194
- Buskirk, R.h (1974), 'Modern Management and Machiavelli', Cashner Books, Boston, MA. Cambridge: Cambridge University Press.



Cabinet Office (2002) 'In the service of democracy. A consultation paper for electronic democracy', UK Government, London.

Cable and Internet loom large in Fragmented Political News Universe. (2004), Retrieved March 29, 2018, from <http://www.people-press.org/2004/01/11/cable-and-internet-loom-large-in-fragmented-political-news-universe/>

Cacciolatti L., Donnelly, C., Fearne, A., Ihua, U., Yawson, D., Armstrong, G. and Simmons, G. (2009). 'Use of supermarket panel data amongst small and medium sized business in the food industry', Academy of Marketing Conference, Leeds, UK.

Calhoun, C. J. (Ed.). (1992). 'Habermas and the public sphere'. MIT press

Castells, M. (2000). 'Materials for an exploratory theory of the network society', British Journal of Sociology, 51, 5–24.

Casey, M. A. and Krueger, R. A. (2000) 'Focus Groups: A Practical Guide for Applied Research', 3rd edition, Thousand Oaks, CA: Sage.

Charmaz, K. (2006) 'Constructing Grounded Theory: A Practical Guide Through Qualitative Analysis', London: Sage.

Chen, G. M. (2000). 'Global communication via Internet: An educational application'. In G. M. Chen & W. J. Starosta (Eds.), Communication and globalociety (pp. 143-157). New York: Peter Lang.

Chis-and-sid-(n.d) accessed 28 July 2017: Available at: <https://chis-and-sid-ict.wikispaces.com/How+the+use+of+ICT+is+influenced+by+cultural+factors>

Clifford .M (2001). 'Political Genealogy after Foucault': Savage Identities Routledge: New York.

Cohen, A. (2001). Review of literature: Responses to 'Empirical and hermeneutic approaches to phenomenological research in psychology, a comparison'. Gestalt, 5(2), 1415-1423.

Coleman, M, Briggs, A.& Morrison, M. (2014). 'Research methods in education leadership and management'. Thousand Oaks: Sage Publications. Collins J. and R. Hussey, (2003) Business Reseach. Hounds Mill Basingstoke, Hampshire: Palgrave Macmillan.

Collis, J. and Hussey, R. (2009), 'Business Research: A Practical Guide for Undergraduate and Postgraduate Students', 3rd edition, London: Palgrave Macmillan.

Committee on Computing and Communications Research to Enable Better Use of Information Technology in Government. (2008). 'Information technology research, innovation, and e-Government' Washington, D.C.: Computer Science and Telecommunications Board, Division on Engineering and Physical Sciences.

Concept of Governance. (n.d.). Retrieved March 29, 2018, from <http://www.unesco.org/new/en/education/themes/strengthening-education-systems/quality-framework/technical-notes/concept-of-governance/>

Cools, C. (2005). 'Relational dialectics. A study on intercultural couples'. Conference Papers --International Communication Association, 1-26. Retrieved from Communication & Mass Media CompleteEBSCOhost.

Cooper LA, Hill MN, Powe NR (2002), 'Designing and evaluating interventions to eliminate racial and ethnic disparities in health care', *Journal of General Internal Medicine* 17(6) 477–86.

Corbett, E. P. J. (1990b). 'Introduction to the Rhetoric and Poetics of Aristotle'. In E. P. J. Corbett, J. L. Golden, & G. F. Berquist (Eds.), *Essays on the rhetoric of the western world* (pp. 162–167). Dubuque, IA: Kendall/Hunt. (Reprinted from *The Rhetoric and Poetics of Aristotle*, pp. v–xxvi, by E. P. J. Corbett, Ed., 1984, New York: Random House).

Corbin, J. and Strauss, A. (2008) 'Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory', London: Sage.

Couldry, N., & Hepp, A. (2013). 'Conceptualizing mediatization: Contexts, traditions, arguments. *Communication Theory*', 23(3), 191-202.

Craig, R. T. (1989). 'Communication as a practical discipline'. In B. Dervin, L. Grossberg, B. J. O'Keefe, & E. Wartella (Eds.), *Rethinking communication: Vol. 1. Paradigm issues* (pp. 97-122). Newbury Park, CA: Sage.

Craig, R. T. (1995). 'Applied communication research in a practical discipline'. In K. N. Cissna (Ed.), *Applied communication in the 21st century* (pp. 147-155). Mahwah, NJ: Erlbaum.

Craig, R. T. (1999): 'Communication Theory as a Field', *Communication Theory* Nine: Two May 1999 Pages 119-161.

Crede, A., & Mansell, R. (1998). 'Knowledge societies... in a nutshell: Information technologies for sustainable development'. Ottawa, Canada: IDRC.

Creswell, J. (2007). 'Qualitative inquiry & research design: Choosing among five approaches' (2nd ed.). Thousand Oaks, CA: Sage.

Creswell, J. W. (2009) 'Research Design: Qualitative, Quantitative, and Mixed Methods Approaches', 3rd edition, London: Sage.

Creswell, J. W. (2013). 'Qualitative inquiry & research design', London: Sage Publication Ltd. *Cross-Cultural Psychology*, 33(2), pp.188-208.

Creswell, J. W., & Clark, V. L. P. (2007). 'Designing and conducting mixed methods research'. Thousand Oaks, CA, US: Sage Publications, Inc

Creswell JW, Plano Clark VL. (2011). Designing and conducting mixed methods research'. 2nd ed. Thousand Oaks, CA: Sage;

Creswell, J. W., Tashakkori, A., Jensen, K. D., & Shapley, K. L. (2003). 'Teaching mixed methods research: Practices, dilemmas, and challenges'. In A. Tashakkori & C. Teddlie (Eds.), Handbook of mixed methods in social & behavioral research (pp. 619-637). Thousand Oaks, CA: Sage.

Crozier, M. (2007). 'Recursive governance: Contemporary Political communication and public policy.' Political Communication, forthcoming v. 24.

Daft, R. L. & Lengel, R. H. (1984). 'Information richness: A new approach to managerial behavior and organization design'. In B. M. STAW & L. L. Cummings, Eds. Research in Organizational Behavior. Greenwich:

Daft, R. L. & Lengel, R. J. (1986). 'Organizational information requirements, media richness and structural design'. Management Science, 32, 554—571. JAI Press.

Daily, C. M., Dalton, D. R. and Cannella Jr, A. A. (2003) 'Corporate governance: decades of dialogue and Data'. Academy of Management Review, 28(3) 371-82

Damanpour, F. (1992) 'Organisational size and innovation', Organisation Studies, Vol. 13, No. 3, pp.375—402.

Daniel, E. (1999) 'Provision of electronic banking in the UK and the Republic of Ireland', International Journal of Bank Marketing, Vol. 17, No. 2, pp.72—82.

Davenport, T.H. and Harris, J. (2007) 'Competing on Analytics: The New Science of Winning', Boston, MA: Harvard Business School Press.

Davenport, T.H., Harris, J. and Morison, R. (2010) 'Analytics at Work: Smarter Decisions, Better Results', Boston, MA: Harvard Business School Press.

Davidson, A. (1997). 'Structures and strategies of discourse: Remarks towards a history of Foucault's Philosophy of language'. In A. Davidson (Ed.), Foucault and His Interlocutors (p. 45). Chicago: University of Chicago Press.

Davis, M. H., & Harden, R. M. (2001). 'E is for everything in e-learning'. Medical Teacher 23 (5): 441-444

Dey, I. (1993) 'Qualitative Data Analysis: A User-Friendly Guide for Social Scientists', London: Routledge.

Dilthy, W. (2002), 'Formation of the Historical World in Human Sciences'. Princeton, NJ: Princeton University Press.

de Bruijn, Mirjam; Nyamnjoh, Francis; Brinkman, Inge (2009). 'Mobile Phones: The New Talking Drums of Everyday Africa. Bamenda and Leiden': Langaa and African Studies Centre.

de Saussure, F. (1983), 'Course in General Linguistics, trans. by Harris, R., Open Court Classics', Chicago, IL. 'Decades of dialogue and data', *Academy of Management Review*, 28(3), pp.371-382.

DeCaro, P. A. (2011). 'Origins of public speaking. The Public Speaking Project'. Chapt.2 Copyright ©2011. The Public Speaking Project.  
<http://www.publicspeakingproject.org/PDFS/chapter2.pdf>

Deleuze, G. (1999). 'Foucault', ed. And trans. S.Hand London: Continuum.

DeMarrais, K. B., & Lapan, S. D. (2004). 'Foundations for research: methods of inquiry in education and the social sciences'. Mahwah: Lawrence Erlbaum Associates.

Denscombe, M. (2010) . 'The Good Research Guide for Small-Scale Social Research Projects', McGraw-Hill, London.

Denzin N.K. & Lincoln Y.S. (2000b) Introduction: the discipline and practice of qualitative research. In *Handbook of Qualitative Research* (Denzin N.K. & Lincoln Y.S., eds), Sage, Thousand Oaks, CA.

Denzin N.K. & Lincoln Y.S. (eds.) (2000a) *Handbook of Qualitative Research*. Sage, Thousand Oaks, CA.

Denzin, N. K. (1994). The art and politics of interpretation. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 500-515), Thousand Oaks, CA: Sage.

Denzin, N. K. and Lincoln, Y. S. (1994) 'Introduction: Entering the field of qualitative research', in N. K. Denzin and Y. S. Lincoln (eds.), *Handbook of Qualitative Research* (pp.1-17), London and Thousand Oaks, CA: Sage.

Dervin, B. et al. (1976). 'The development of strategies for dealing with the information needs of urban residents, phase one: the citizen study', Seattle: School of Communications, University of Washington.

Denzin, N. K. and Lincoln, Y. S. (2011) 'Introduction: The discipline and practice of qualitative research', in N. K. Denzin and Y. S. Lincoln (eds.), *The Sage Handbook of Qualitative Research*, 4th edition, Thousand Oaks, CA: Sage.

Devetak, (R., 2013). Post-structuralism. In S. Burchill et al., eds. *Theories of international relations*. New York, NY: Palgrave Macmillan, pp. 187–216.

Dey, I. (1999). 'Grounding Grounded Theory: Guidelines for Qualitative Inquiry'. San Diego, CA: Kluwer.

Donaldson, T., and Preston, I. (1995), 'The Stakeholder Theory of the Corporation: Concepts, evidence and Implications', *Academy of Management Review*, 20, (1) p. 65-91.

Dosse, F. (1997), 'History of Structuralism'. Volume 1: The Rising Sign, 1945-1966, trans. by Glassman, D., University of Minnesota Press, Minneapolis, MN.

Downing, L. (2012). 'The Cambridge Introduction to Michel Foucault'. Cambridge University Press

Dreyfus, H. L., & Rabinow, P. (2014). *Michel Foucault: Beyond structuralism and hermeneutics*. University of Chicago Press.

Easterby-Smith, M., Thorpe, R. and Lowe, A. (1991) *Management Research - An Introduction*, London: Sage.

Ebeniro, J. O. 2000. "Role of the University in New Technology Acquisition". Committee of Vice- Chancellors of Nigerian Federal Universities 18th Annual Seminar, PortHarcourt, November 13th- 17th. Proceedings. pp. 139.

Edgar, A. and Peter, S. (2002) *Cultural Theory: The Key Concepts*, New York: Routledge.

Edwards, L. (2001). *Mediapolitik: How the mass media have transformed world politics*. Washington, DC: Catholic University of America Press.

Eisenhardt, K.M. (1989), 'Building theories from case study research', *Academy of Management Review*, Vol. 14, No. 4, pp. 532-550.

Ekanem, O. T. (2003). Productivity in the Banking Industry in Nigeria. *Journal of Economics and Social Studies* 3(7) 24.

Electoral Commission (2003) 'The shape of elections to come'. Electoral Commission, London (<http://www.electoralcommission.org.uk>)

Emler N. & Frazer, E. (1999) 'Politics: the education effect'. *Oxford Review of Education*, Vol. 25, Nos.1 & 2, pg. 251-273.

Enakrire, T. R. and Onyenania, G. O. (2007). 'Causes Inhibiting the Growth or Development of Information Transfer in Africa': A Contextual Treatment. *Library Hi Tech News*, 24 (4), 20-28.

Etta, F. E. and S. Parvyn-Wamahiu (eds.) (2003) 'Information and communication technologies for development in Africa' - Volume 2: The experience with community telecentres. Ottawa: International Development Research Centre.

Lean J, Eugene Sadler-Smith Simon Down (2000), 'Modern learning methods: rhetoric and reality', *Personnel Review*, Vol. 29 Iss 4 pp. 474 - 490 Permanent link to this document: <http://dx.doi.org/10.1108/00483480010296285>.

European Commission, (2001, 2003) 'The European Commission's priorities'  
[http://ec.europa.eu/invest-in\\_research/pdf/download\\_en/entrepreneurship\\_europe.pdf](http://ec.europa.eu/invest-in_research/pdf/download_en/entrepreneurship_europe.pdf)

Fama, Eugene F. and Jensen, Michael C., (1983) 'Separation of ownership and control', *Journal of Law and Economics* 26, 301-325.

Farrell, T. B. (1993). 'Norms of rhetorical culture. New Haven, CT': Yale University Press.

'Federal Republic of Nigeria National Telecommunication Policy' (2000), Printed by Metropolitan Press Ltd.

Federal republic of Nigeria (2001). 'Nigeria national policy for information technology (IT)'. Available:[www.nitda.gov.ng/nigeriapolicy.pdf](http://www.nitda.gov.ng/nigeriapolicy.pdf). Madu2000andFapothunda1999.

Femi, A. F. (2014). 'The Impact of Communication on Workers' Performance in Selected Organisations in Lagos State, Nigeria'. *IOSR Journal of Humanities and Social Science*, 19(8), 75-82.

Ferguson M. ( 1986). 'Industrial, cultural and social strategies'. In M. Ferguson (Ed.), *New communication technologies and the public interest* (p. 52). Beverly Hills, CA: Sage.

Festinger, L. (1957). 'A theory of cognitive dissonance', Evanston, IL: Row & Peterson

Fine, A. (Ed.). (2006). 'Handbook on animal assisted therapy: Theoretical foundations and guidelines for practice' (2nd ed.). Boston, MA: Academic Press.

Fisher, C. (2007) 'Researching and Writing a Dissertation: A Guidebook for Business Students', 2nd edition, Harlow: FT Prentice Hall.

Follesdal., D. (1979). 'Hermeneutics and the hypothetico-deductive method'. *Dialectica*, Institute of Psychoanalysis, London.

Foreign Affairs and international Trade Canada-FAITC (2014) 'Centre for Intercultural Learning' Cultural Information – Nigeria:

Forsyth, E. (2005). 'Public libraries and the Millennium Development Goals.' *IFLA Journal*, 31, 315-323.

Fose. (2002). 'Adobe recognizes e-Government innovation: Internal Revenue Service employees honored for excellence in electronic tax form programs'. Washington: B. W. G. Group.

Foss, S. K., Foss, K. A., & Trapp, R. (2014). 'Contemporary perspectives on rhetoric'. Waveland Press

Foucault, M. (1983a). 'Afterword: The Subject and Power'. In: Dreyfus, H.L. and P.

- Rabinow 'Michel Foucault: Beyond Structuralism and Hermeneutics', 2nd Edition, pp. 208-226,
- Foucault M. (1979). 'Discipline and punish: The birth of the prison'. New York: Vintage.
- Foucault M. ( 1980). 'Knowledge/Power, ed, C. Gordon'. Brighton Harvester.
- Foucault, M. (1970). 'The order of things: An archaeology of the human sciences.' New York: Random House.
- Fountain, J. (2002), 'Information, institutions, and governance'. Boston: Harvard University, National Center for Digital Government.
- Fourie, L (2008). 'Enhancing the livelihoods of the rural poor through ICT': A knowledge map. Working paper 13, 2008. Accessed from [www.infodev.org](http://www.infodev.org) 22.
- Frank, R.H (1994) 'Microeconomics and Behaviour', New York: McGraw Hill.
- Frederickson, H. G. (1999). 'The repositioning of American public administration'. PS: Political Science and Politics, 32, 701–711.
- Frey, J. and Fontana, A. (1993) 'The group interview in social research', in E. D. Morgan
- Fuchs, C., & Mosco, V. (2012). 'Introduction: Marx is back—the importance of Marxist theory and research for critical communication studies today. TripleC: Communication, Capitalism & Critique'. Open Access Journal for a Global Sustainable Information Society, 10(2), 127-140.
- Fulk, J. et Boyd, B. (1991), 'Emerging Theories of Communication in Organizations', Journal of Management, Vol. 17, p. 407-446.
- Fulk, J., Schmitz, J., & Steinfield, C.W. (1990). 'A social influence model of technology use'. In J. Fulk & C. Steinfield (Eds.), Organizations and communication technology (pp. 117-139). Newbury Park, CA: Sage.
- Fuller, L. (1954), 'American legal philosophy at mid century', Journal of Legal Education, Vol. 6 No. 4, pp. 457-85.
- Fung, A, Gilman H.R, Shkabatur, F. (2013). 'Six Models for the Internet + Politics': International Studies Review (2013) 15, 30–47
- Gadamer, H. G. (1985). 'On the origins of philosophical hermeneutics'. In H. G. Gadamer Philosophical apprenticeships (R.R. Sullivan, Trans.). (pp. 177-193). Cambridge, MA: MIT Press.

Galie, P., & Bopst, C (2006). 'Machiavelli & Modern Business: Realist Thought in Contemporary Corporate Leadership Manuals', *Journal of Business Ethics*, 65, 235-250.

Garlie-Nikodimov M. (2000). 'The Prince: Machiavelli; Paris': Librairie Générale française.

Geertz, (1979) in Juarrero, A., (2000) 'Dynamics in Action: International Behaviour as a Complex System' *Emergence*; 2000 Volume 2 Issue 2 ISSN: 15213250 Accession Number 4732774 pg, 239. Gadamer.

Geertz, C. (1973), 'The Interpretation of Cultures: Selected Essays', New York: Basic Books.

Geertz. C (1993). 'The interpretation of cultures: selected essays': London Fontana Press, 1993.

Geertz. C (2013). 'The The interpretation of cultures: selected essays' - EPub edition. New York BasicBooks, 1916

George, S. (1976). 'The Reconciliation of the 'Classical' and 'Scientific' Approaches to International Relations'. *Millennium: Journal of International Studies* Vol5 pp 28-40.

Gerbner, G.; Gross, L (1976) 'Living with television: The violence profile'. *Journal of Communication*, Vol 26(2), 1.

Gerth, H. H., and C. Wright Mills, editors (1970) 'From Max Weber: Essays in sociology'. London: Routledge & Kegan Paul. [First published 1946, Oxford: Oxford University Press.].

Gettier, E. (1963), 'Is Justified True Belief Knowledge?' *Analysis*, 23, pp. 121-123.

Ghoshal, Sumantra, and Peter Moran (1996), 'Bad for Practice: A Critique of the Transaction Cost Theory,' *Academy of Management Review* 21: 13-47.

Giddens, A., Lash, S. (1994) 'Reflexive Modernization', *Politics, Tradition and Aesthetics in the Modern Social Order*: Stanford University Press, Stanford, California

Giddens, A. (2008) 'Profiles and Critiques in Social Theory, Londres,' Macmillan & Berkeley, University of California Press.

Gill, J. and Johnson, P. (2010) 'Research Methods for Managers', 4th edition, London: Sage. Gillwald



Gillwald, A., Moyo, M., & Stork, C. (2012 ). 'Understanding what is happening in ICT in South Africa. A supply and demand-side analysis of the ICT Sector'. Evidence for ICT Policy Action Policy Paper 7

Giorgini G. (2014). 'Cicero and Machiavelli: Two Visions of Statesmanship and Two Educational Projects Compared', *Etica & Politica / Ethics & Politics*, XVI, 2014, 2, pp. 506-515

Glaser, B. and Strauss, A. (2009) 'The Discovery of Grounded Theory: Strategies for Qualitative Research' 4th Edition, London: Aldine Transaction.

Glaser, B. and Strauss, A. (1967) 'The Discovery of Grounded Theory: Strategies for Qualitative Research', New York: Aldine de Gruyter.

'Global trends and Policies', (2006). Washington DC: The International Bank for Reconstruction and Development / The World Bank.

Goulding, C. (2002), 'Grounded Theory: A Practical Guide for Management, Business and Market Researchers', London: Sage.

Grandon, E. and Pearson, J.M. (2003), 'Strategic value and adoption of electronic commerce: an empirical study of Chilean small and medium businesses', *Journal of Global Information Technology Management*, Vol. 6 No. 3, pp. 22-43.

Grandon, E. and Pearson, J.M. (2004), 'E-commerce adoption: perceptions of managers/owners of small and medium sized firms in Chile', *Communications of the Association for Information Systems*, Vol. 13 No. 8, pp. 81-102.

Green L, (2010)' 'The Internet: An Introduction to New Media' (New York: Berg, 2010. Pg.119).

Griffin, E. A. (2012). 'A first look at communication theory' (8th ed.). New York: McGraw-Hill.

Griffith, B. C. (1980). 'Communication and information processing within scientific disciplines: Empirical findings for psychology'. *Information Storage and Retrieval*, pp 8, 123.

Grossman, Sanford, and Oliver Hart, (1986), 'The Costs and Benefits of Ownership: A Theory of Vertical and Lateral Integration', *Journal of Political Economy*, XCIV (1986), 691-719.

Groenwald, T. (2004). 'A phenomenological research design illustrated'. *International Journal of Qualitative Methods*, 3(1), 1-26.

Guba, E. G. and Lincoln, Y. S. (1994) 'Competing paradigms in qualitative research', in N. K. Denzin and Y. S. Lincoln (eds.), *Handbook of Qualitative Research* (pg.65), London: Sage.

Guba, E.G & Lincoln. Y.S (2000). 'Paradigmatic controversies, contradictions, and emerging confluences'. In N.K. Denziin & Y.S Lincoln (Eds.) Handbook of qualitative research. (2nd ed.) (163-188). Thousand Oaks.CA: Sage.

Guha, N. (2006). 'ICT for Continuing Professional Education for LIS Professionals' . Retrieved May 29, 2018, from <https://dyuthi.cusat.ac.in/xmlui/handle/purl/2362>

Gutting. G (2005), 'Foucault: A Very Short Introduction', Pubished in the Unted States by Oxford University Press, New York Gwynn, Aubrey. Roman Education from Cicero to Quintilian. Oxford: Clarendon Press, 1926.

Guyer, J. (1995). 'Money Matters: Instability, Values and Social Payments in the Modern History of West African Communities'. Portsmouth, New Hampshire: Heinemann.

Habermas, J. (1996), 'Between Facts and Norms: Contributions to a Discourse Theory of Law and Democracy', Trans.W. Rehg (Cambridge, MA: MIT Press).

Habermas, J. (2001), 'Constitutional democracy: a paradoxical union of contradictory principles?', Political Theory, 29(6), pp. 4, 766–78

Habermas, J. (1995). 'Democracy. Mind. Morality. Moscow': ITs Akademiya, p. 37

Habermas J. (2006) 'Political Communication in Media Society: Does Democracy Still Enjoy an Epistemic Dimension? The Impact of Normative: Theory on Empirical Research' Communication Theory 16 (2006) 411–426 a 2006 International Communication Association.

Habermas, Jürgen (2004b): 'The Moral and the Ethical': A Reconsideration of the Issue of the 20priority of the Right over the Good, trans. W. Rehg, in S. Benhabib and N. Fraser (eds), Pragmatism, Critique, Judgment: Essays for Richard J. Bernstein. Cambridge, MA: MIT Press, pp. 29-43.

Habermas, J., (1989): 'The Structural Transformation of the Public Sphere', Cambridge: Polity

Habermas, J. (1984). 'The theory of communicative action': Vol. 1. Reason and the rationalization.

Habermas, Jürgen, and Steven Seidman (1989). 'Jürgen Habermas on society and politics': A reader. Beacon Press.

Haddon, L. (2006). 'Empirical Studies Using the Domestication Framework'. In: Berker, T., Hartmann, M., Punie, Y. & Ward, K. (eds.) Domestication of media and technology. Berkshire: Open University Press.

Hagen, M. (2000)' 'Digital democracy and political systems': Issues of Theory and Practice. KL.

Hahn, CL. (1999), 'Citizenship education: An empirical study of policy, practices and outcomes'. Oxford Review of Education Vol 25, Nos.1 & 2, pg. 231-250.

Hale Matthew , Julite, Musso, and Chritopher Wear (1999). 'Developing Diggital Democracy: Evidence from Californian Municipal Web Pages.' In B. Loader (eds.) Digital Democracy. London: Polity

Hall. S.(ed) (1997). 'Representation: Cultural Representations and Signifying practices', London: SAGE Publications.

Han, S. (2013). 'Structuralism and post-structuralism'. Routledge Handbook of Social and Cultural Theory, 39.

Harden, R. M. (2002). 'Development in outline based education'. Medical Teacher 24 (2): 117-120

Hargittai, E. (1999). 'Weaving the Western Web: Explaining Differences in Internet Connectivity Among OECD Countries'. Telecommunications Policy (23): 711 – 718.

Harris, R. (1983), 'Translator's introduction' in de Saussure, F (Ed.), Course in General Linguistics, trans. by Harris, R., Open Court Classics, Chicago, IL

Hawkrigde, D. (1983). 'New information technologies in education'. London: Broom Relm, P. 161.

Heart, H., (1982), 'Essays on Bentham – Studies in Jurisprudence and Political Theory' (Clarendon Press, Oxford 1982)

Heath, R. L., & Bryant, J. (2013). 'Human communication theory and research: Concepts, contexts, and challenges'. Routledge.

Heeks, R. (2008). 'ICT4D 2.0: The Next Phase of Applying ICT for International Development'. Computer, 41(6), 26-33..

Heeks, R. (2009). 'The ICT4D 2.0 manifesto: Where next for ICTs and international development?'. University of Manchester. Institute for development policy and management (IDPM). Development informatics group.

Heidegger, M. (1962/2004), 'Being and Time', Blackwell. Oxford.

Henderikus, S. (2007). 'Theoretical psychology. The international handbook of psychology'. Thousand Oaks, CA: Sage.

Hertz, R. (1997). 'Reflexivity and Voice'. Thousand Oaks, CA: SAGE Publications Publications.

Heugens, P. (2005). 'A Neo-Weberian theory of the firm'. Organization Studies. 26/4;

Hoffman, D.L. and Novak, T.P. (1997), 'A new marketing paradigm for electronic commerce', *The Information Society* (special issue on Electronic Commerce), Vol. 13, January-March, pp. 43-54.

Hofstede, G. H. (2001), 'Culture's Consequences: Comparing Values, Behaviours', Institutions and Organisations across Nations, 2nd edition, Thousand Oaks, CA: Sage.

Holmberg, Sören, Bo Rothstein and Naghmeh Nasiritousi. (2009). 'Quality of Government: What You Get', *Annual Review of Political Science*, 12,135–61.

Honderich, T. (1995), 'The Oxford Companion to Philosophy'. Oxford: Oxford University Press.

Hoogenboom M and Ossewaarde (2005), 'From Iron Cage to Pigeon House: The Birth of Reflexive Authority': *Organization Studies* 26: 601 DOI: 10.1177/0170840605051475.

Horkheimer, M, (1993). 'Between Philosophy and Social Science', Cambridge: MIT Press.

Horrigan, J. B. (2006). 'The Internet as a Resource for News and Information about Science'. Washington: Pew Internet and American Life Project

Horrigan, J. (2006) 'Portraits of American Internet Use: Findings from the Pew Internet and American Life Project', in Kraut, R, Brynin, M. and Kiesler, S. (2006) *Computers, Phones and the Internet. Domesticating Information Technology*, Oxford University Press, Oxford, pp.21-31

Howell, K. E. (2013) 'An Introduction to the Philosophy of Methodology'. London: SAGE Publications. Pg.53).

Howell, K.E. (2004) *Europeanization, European Integration and Financial Services: Developing Theoretical Frameworks and Synthesising Methodological Approaches*. Basingstoke: Palgrave MacMillan.

Hughes, S. (2003) 'Community multimedia centres: creating digital opportunities for all', in B. Girard (ed) *The One to Watch: Radio, New ICTs and Interactivity*, Food and Agriculture Organization of the United Nations, Rome.

Humby, C., Hunt, T. and Philips, T. (2008). 'Scoring Points; How TESCO continues to win customer loyalty'. (2nd ed.) London: Kogan Page.

Hunt, E.L (1990), 'Plato and Aristotle on rhetoric and rhetoricians:/Essays on the rhetoric of the western world', In e.P.J Corbett, (Eds)(p.126-161). New York: Century

Company).

Hussey and Hussey, (1997) 'Business Research: A Practical Guide for Undergraduates and Postgraduates' Palgrave, New York.

ICT. (2010, January 4). Retrieved March 29, 2018, from <https://techterms.com/definition/ict>

Idiegbeyan-Ose Jerome, D.B.M. and Theresa, U.A (2009). 'Information as an effective tool in rural development'., International Journal of Library and Information Science. Vol.1 (3),22-28, accessed on 07 June 2013  
[http://www.academicjournals.org/article/article1379404476\\_Idiegbeyanose%20and%20Akpoghome%20\(1\).pdf](http://www.academicjournals.org/article/article1379404476_Idiegbeyanose%20and%20Akpoghome%20(1).pdf)

Ifidon, S. E. (2006). 'Planning without information: the bane of national development'. The 26th Inaugural Lecture at Ambrose Alli University, Ekpoma, Nigeria.  
Internet Encyclopedia of Philosophy: A peer Review Resource (IRP):  
<http://www.iep.utm.edu/prodicus/> accessed on 16 April 2016.

Irefin, I. A., Abdul-Azeez, I. A., & Tijani, A. A. (2012). 'An investigative study of the factors affecting the adoption of information and communication technology in small and medium scale enterprises in Nigeria'. Australian Journal of Business and Management Research, 2(2), 1

Iskander, M. R. and Chamlou, N. (2000) 'Corporate governance: A framework for implementation', Report, World Bank Group, Washington, DC.

Jaeger, W. (1944). 'Paideia: The ideals of Greek culture': Vol. 3. The conflict of cultural ideals in the age of Plato (G. Highet, Trans.). New York: Oxford University Press.

Jensen, M. C., & Meckling, W. H. (1976). 'Theory of the firm: managerial behavior, agency costs and ownership structure'. Journal of financial economics .

Jensen, M. (2003). 'The current status of information and communications technologies in Africa'. Chapter 3 in Information and communication technologies for African development, edited by Okpaku, J. New York: United Nations ICT Task Force

Joe .M, (2003) 'Telegram! Modern History as Told through More Than 400 Witty and Revealing Telegrams': Linda Rosenkrantz. New York: Henry Holt & Company, 2003. 224 pp.

Johnson, (2013). 'Our Priority is On Local Content Development' [interview] All Africa Via Acquire Media NewsEdge accessed-08 July 2013 <http://cloud computing>.

tmcnet.com/news/2013/07/08/7258080.htm

Johnson, D. W. (2001). 'No place for amateurs'. New York: Routledge.

Johnston C (1998). 'The Impact of New Communications Technologies' London: Publishers Praeger Palgrave MacMillan Press, Basingstoke, UK.

Jørgensen, T. B. (2006). 'Public values, their nature, stability and change: The case of Denmark'. *Public Administration Quarterly*, 30, 365-398.

Kafle, N.P (2011) 'Hermeneutic phenomenological research method simplified'. *Bodhi: An Interdisciplinary Journal*. (2011); 5, ISSN, 2091-0479

Kauffman, C. (1994). 'The axiological foundations of Plato's theory of rhetoric'. In E. Schiappa (Ed.), *Landmark essays on classical Greek rhetoric* (pp. 101–116). Davis, CA: Hermagoras. (Reprinted from *Central States Speech Journal*, 33, 353–366, 1982)

Kayani, R., & Dymond, A. (1997). 'Options for rural telecommunications development'. Washington, DC: The World Bank.

Kelly, S. D., Özyürek, A., & Maris, E. (2010). 'Two sides of the same coin: Speech and gesture mutually interact to enhance comprehension'. *Psychological Science*, 21, 260–267. doi:10.1177/0956797609357327

Kennedy, G. A. (1994). 'A new history of classical rhetoric. Princeton', NJ: Princeton

Kidder, P. (1997). "The Hermeneutic and Dialectic of Community in Development": *The International Journal of Social Economics*. Vol. 24, Issue 11 Item 030668293.p.1181

Kim, P. S., Halligan, J., Cho, N., Oh, C. H., & Eikenberry, A. M. (2005). 'Toward participatory and transparent governance': Report on the sixth Global Forum on Reinventing Government. *Public Administration Review*, 65, 646–654.

Kjær, A. M. (2004). 'Governance'. Cambridge, England: Polity Press.

Kone, A. M. (2013). 'Between Linguistic Universalism and Linguistic Relativism: Perspectives on Human Understandings of Reality'. *Inquiries Journal*, 5 (09).

Kooiman, J. (2003), 'Governing as Governance', London: Sage.

Kothari, C.R. (2004). 'Research Methodology Method & Technique'. India: New Age International (P) Limited Publisher.

Kraut, R., Brynin, M., & Kiesler, S. (Eds.). (2006). 'Computers, phones, and the Internet: Domesticating information technology'. Oxford University Press.

- Kroeber, A. L. and Kluckhohn, F. (1952) 'Culture: A critical review of concepts and definitions', Peabody Museum Papers of American Archaeology and Ethnology, Harvard University, 47(1), p.181.
- Krueger, R. A. (1998), 'Developing Questions for Focus Groups', London: Sage.
- Krueger, R. A. (1994), 'Focus Groups: A Practical Guide for Applied Research', 2nd edition, Thousand Oaks, CA: Sage.
- Kuhn S. (1983) 'Where does tense belong?', manuscript, Georgetown University Washington D.C., 1983.
- Kuhn, T. S. (1962) 'The Structure of Scientific Revolutions', Chicago: University of Chicago Press.
- Kumar A. (2015) 'ICT Information: The role of ICT in promoting good governance', Access on 07 June 2017 from <https://www.slideshare.net/amittyagi104/role-of-ict-in-good-governance>
- Kuper, A & Kuper, eds) (1985). 'The Social Science Encyclopedia', Routledge, 1985
- Kutchinsky S, (2014). 'World thinkers 2014: The results' Prospect Magazine.
- Kvale, S. (1996) Interviews: 'An Introduction to Qualitative Research Interviewing', Thousand Oaks, CA: Sage.
- Kwame Boafo S.T (2006) 'Participatory Development Communication: An African Perspective in People, Land, and Water: Participatory Development Communication for Natural Resource Management', ed. Guy Bessette (London: Earthscan, 2006), 42.
- LGA (2002). 'The Implementation of Electronic Voting in the UK, Local Government Association, London.
- Lane, M. (2015). 'Plato's progeny: How Plato and Socrates still captivate the modern mind'. Bloomsbury Publishing.
- Larner, W. and M. Butler (2003) 'Headline' Local Partnerships in Aotearoa/New Zealand, Local Partnerships and Governance Research Group Research Report, University of Auckland, Auckland.
- Larochelle, M. (1998). 'Constructivism and education.' Cambridge, MA: Cambridge University Press.
- Lavrakas, P.J. (2008) Encyclopedia of survey research methods. Sage Publications, Inc., Thousand Oaks.

Lazaroiu, G. (2013). 'Besley on Foucault's discourse of education'. *Educational Philosophy and Theory*, 45(8), 821-832.

Lean Jonathan, Simon Down, Sadler-Smith (2000) 'Modern learning methods: rhetoric and reality', *Personnel Review*, Vol. 29 Issue: 4, p.474-490,  
<https://doi.org/10.1108/00483480010296285>

Learmount, S. (2002). 'Theorizing Corporate Governance: New Organizational Alternatives' Working Paper wp237, Centre for Business Research, University of Cambridge.

Lee, T.-T. (2005). 'Media effects on political disengagement revisited'. *Journalism and Mass Communication Quarterly*, 82, 416-433.

Letza, S., Sun, x., & Kirkbride, J. (2004). 'Shareholding versus stakeholding: A critical review of corporate governance. *Corporate Governance: An International Review*, 12(3), 242-262

Liaw, T., & Humphreys, J. (2006). 'Rural eHealth paradox: It's not just geography!' *Aust J. Rural Health*, 14, 95-98.

Lies, J. (2010). 'Change management under change communication' *Wist, Heft 12*, December 2010 (2010), pp. 608-610.

Lincoln, Y. and Guba, E. (2000), 'Lincoln Y.S. (1995) Emerging criteria for qualitative and interpretive research'. *Qualitative Inquiry* 3, 275-289.

Lincoln, Y. S. and Guba, E. G. (2000). 'Paradigmatic controversies, contradictions and emerging confluences'. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of Qualitative Research* (2nd ed., pp. 163-188). Thousand Oaks, CA: Sage Publications.

Lindlof, T. R., & Taylor, B. C. (2002). 'Qualitative communication research methods' (2nd ed.). Thousand Oaks, CA: Sage.

Littlejohn, S. W. (1983). 'Theories of human communication'. Belmont, CA: Wadsworth.

Littlejohn, S. W. (1992). 'Theories of human communication'. Belmont, CA: Wadsworth.

Lopez, A., S. Atran, J.D. Coley, D.L. Medin & E.E. Smith. (1997). 'The tree of life: universal and cultural features of folkbiological taxonomies and inductions'. *Cognitive Psychology* 32:251-295.

Luhmann, N. (2000). 'The reality of mass media'. Cambridge, England: Polity Press.

Lull, J (2000), 'Media, Communication, Culture A Global Approach': Blackwell Publishers Ltd.



Macdonald E.J & Beck-Dudley L.C, (1994) 'Are Deontology and Teleology'; Journal of Business Ethics. August 1994 , Volume 13, Issue 8, pp 615–623

Macey, J. and O'Hara, M. (2003) 'The corporate governance of banks', Economic Policy Review, April, pp.91-107.

Machiavelli . N. (2009) 'The Prince', Vintage Puublishpp 55-68.

Mack. M., (1984) 'Jeremy Bentham', International Encyclopaedia of the Social Sciences, Vol. 2, MacMillan Company & The Free Press, New York, NY, 1968, pp. 55-7 and "Jeremy Bentham" in The New Encyclopaedia Britannica ,Vol. 2. Chicago, IL, 1984, pp. 837-38.

Mack, M, (1963) 'Jeremy Bentham – An Odyssey of Ideas', Columbia University Press, New York, NY.

Macrae, D. G.(1974 ) 'Weber'. London: Fontana/Collins.

Makotsi, R. (2004) 'Sharing resources - how library networks can help reach education goals'.accessed July 20, 2017 from [https://digitalcommons.unl.edu/cgi/viewcontent.cgi?referer=http://www.google.com/search?client=safari&rls=10\\_6\\_8&q=Makotsi,+R.+2004.+Sharing+resources+-+how+library+networks+can+help+reach+education&ie=UTF-8&oe=UTF-8&httpsredir=1&article=2651&context=libphilprac](https://digitalcommons.unl.edu/cgi/viewcontent.cgi?referer=http://www.google.com/search?client=safari&rls=10_6_8&q=Makotsi,+R.+2004.+Sharing+resources+-+how+library+networks+can+help+reach+education&ie=UTF-8&oe=UTF-8&httpsredir=1&article=2651&context=libphilprac)

Magritte, R. (1932). 'Cecin'est pas une pipe' [Painting]. Los Angeles: Los Angeles County Museum of Art.

Malinowski, B. (1985). Journal d'ethnologue. Paris : Le Seuil.

Mancini, P. (1999). 'New frontiers in political professionalism'. Political Communication, 16, 231–245.

Marchington, M. and Wilkinson, A. (1996), 'Core Personnel and Development', Institute of Personnel and Development, London.

Margolis, S. (1989) 'Postscript on modernism and postmodernism, both', Theory, Culture and Society; 6-30.

Markus, M L. (1994), 'Electronic Mail as the medium of managerial choice', Organization science, Vol 5, n° 5, p. 502-527.

Marsh, D and South M. (2000) 'Understanding Policy Networks: Towards a Dialectical Approach' Political Studies 48 (1), 4-2'

Marsh, D. (2008) 'what is At Stake? A response to Bevir and Rhodes' The British Journal of Politics and International Relations 10 (a): 735-739.

- Marsh, D. (2011). 'The new orthodoxy: the Differentiated Polity Model' *Public Administration* 89 (1): 32-48.
- Marsh, D. and Rhodes, R. (1992) 'Policy Networks in British Government' Oxford: Oxford University Press.
- Marsh, D. Richard, D and Smith M (2003) 'Unequal plurality: towards an asymmetric power model in British Politics', *Government and Opposition* 38 (3): 306.
- Marshall, C., & Rossman, G. B. (2011). 'Designing Qualitative Research'. Thousand Oaks, CA: SAGE Publications, Inc.
- Martin, J.W. (1988). 'The information society'. London: Aslib, P.179.
- Matovelo, D.S (2008). 'Enhancing farmer's access to and use of agriculture information for empowerment and improve livelihoods: a case of Morogororegon'. Thesis presented at University of Dar es salaam as the requirement of Doctor of Philosophy.
- Mauss, M. (1926). 'Manuel d'ethnographie'. Paris : Éditions Sociales.
- Maybee, Julie E., (2016) 'Hegel's Dialectics', *The Stanford Encyclopedia of Philosophy* (Winter 2016 Edition), Edward N. Zalta (ed.), URL = <https://plato.stanford.edu/archives/win2016/entries/hegel-dialectics/>. Access on.
- Mayer-Scho'nberger, V., & Lazer, D. (2007). 'Governance and information technology'. Cambridge, MA: MIT Press.
- McCarthy, T (1999) 'Habermas', in S. Critchley and W.A. Schroeder (eds), *A Companion to Continental Philosophy*; Oxford: Blackwell, pp.397-406
- McClurg, S. D. (2003). 'Social networks and political participation. *Political Research Quarterly* 56 (4), 449-464
- McCroskey, J. C. (2015). 'Introduction to rhetorical communication'. Routledge.
- McIntyre, M. L. and Murphy, S. A. (2012), "The Role of Information and Communications Technology on Moral Agents and Governance in Society", *Corporate Governance*, 12, forthcoming.
- McKerrow R.E.( 2011) 'Foucault's Relationship to Rhetoric', *Review of Communication*, 11:4, 253-271, DOI: 10.1080/15358593.2011.602103.
- McQuail, D., & Windahl, S. (1986). 'Communication models. For the study of mass communication'. London: Longman.

- Megginson L. W & Jeffry M. Netter, (2001) 'From State to Market: A Survey of Empirical Studies on Privatization' 39 J. Econ. Literature 321, June 2001
- Melodi, A.O. and Ogunboyo, P.T. (2013), "Sustainable Technologies for Power & ICT in a Developing Society": Power Distribution Problems on 11 kV Feeder Networks in Akure, Nigeria: IEEE International Conference on Emerging & (NIGERCON) 978-1-4799-2017-4/13/\$31.00 ©2013 IEEE 292.
- Meyer, T. (2002). 'Media democracy: How the media colonise politics'. Cambridge, England: Polity Press.
- Mauro, Paolo. (1995). 'Corruption and Growth'. Quarterly Journal Of Economics 110 (3) : 681–712.
- Mayer, R. E., & Jackson, J. (2005). 'The case for coherence in scientific explanations: Quantitative details can hurt qualitative understanding'. Journal of Experimental Psychology: Applied, 11, 13–18.
- Miller, A. F. and Alvarado, K. (2005) 'Incorporating documents into qualitative nursing research', Journal of Nursing Scholarships, Fourth Quarter, 37(4), pp.348-353.
- Miller, C. (2008). How Obama's internet campaign changed politics. The New York Times (Nov. 7).
- Ministerial Committee on ICT Policy Harmonization (2012), [draft] 'National Information Communication Technology Policy', 9 January, Abuja.
- Mols, N.P. (2001) 'Organising for the effective introduction of new distribution channels in retail banking', European Journal of Marketing, Vol. 35, Nos. 5/6, pp.661–686.
- Montgomery, B. M. & Baxter, L. A. (1998). 'Dialectical approaches to studying personal relationships'. New Jersey: Lawrence Erlbaum Associates.
- Moore, S. (2012) 'Ideals and realities: Renaissance state communication in Machiavelli's The Prince and More's Utopia', Public Relations Review, 38, 383-389.
- Morgan, L. D. (1996) 'Focus Groups', Annual Review of Sociology, 22, pp.129-152.
- Morgan, S., Heeks, R. and Arun, S. (2004) 'Researching ICT-Based Enterprise for Women in Developing Countries': A Gender Perspective, IDPM, University of Manchester, UK . accessed 28 May 2018 Available at: <http://www.womenictenterprise.org>
- Morris, D. (1999). 'The new prince'. Los Angeles: Renaissance Books.

Morse, Samuel Finley Breese (2012) 'Encyclopedia: The Columbia Electronic Encyclopedia'<sup>TM</sup> © 2012, Columbia University Press.

Moser P. K. (1998) 'The Theory of Knowledge: A Thematic Introduction'. Contributors: Author, Dwayne H. Mulder - Author, J. D. Trout - Author. Publisher: Oxford University Press. New York.1998.

Mostert, B. J. (2001). 'African public library System: a literature survey'. KwaDlangeza: LIRESS Library and Information Science ResearchElectronic Journal. Retrieved December 7, 2016 from <https://digitalcommons.unl.edu/cgi/viewcontent.cgi?referer=https://www.google.ch/&httpsredir=1&article=1482&context=libphilprac>

Mossberger, K., Tolbert, C. & McNeal, R. (2007). 'Digital citizenship'. Cambridge, Mass: MIT Press.

Mueller, R. K. (1992) 'Boardworthiness: From a President's and Director's Perspective', New York: The Presidents Association.

Mukti, N. (2000), "Barriers to putting business on the internet in Malaysia", Electronic Journal on Information Systems in Developing Countries, Vol. 2 No. 6, pp. 1-6. Mutuallly Exclusive?: Journal of Business Ethics:Kluwer Academic Publishers. 13: 615-623.

Myers, M. D. 2009. 'Qualitative Research in Business & Management'. Sage, London

Narula, U & Pearce. W. B (1986) "Development as Communication: A Perspective on India"Publisher: Southern Illinois University Press: carbondale, il 1986

Ndukwe, E. (2002). 'Application of information technology'. The Pointer , 28 October, P.16.

Ndukwe, E.C.A. (2003), A'n overview of evolution of the telecommunication industry in Nigeria and challenges ahead (1999-2003)'. Available at: <http://www.ncc.gov.nig/speeches-presentations/EVC's%20Presentation/overview%20of%20Telecom%20>. (1/12/2008).

Negrine, R., & Lilleker, D. G. (2002), "The professionalization of political communication", European Journal of Communication, 17, 305–323. Machiavelli .N. (2009) The Prince, Vintage Publish pp 55-68.

Neilsen, J.F., Host, V., Jaensson, J.E., Kock, S. and Selnes, F. (2003) 'Market orientation in Nordic banks: does nationality matter?', European Journal of Marketing, Vol. 37, Nos. 11/12, pp.1818–1841.

Nielsen, J.F. (2002) 'Internet technology and customer linking in Nordic Banking', International Journal of Service Industry Management, Vol. 13, No. 5, pp.475–495.

Nillesen, A. B. (1998). 'Een queeste naar voorlichting. Communicatiewetenschap en de eerste stap op weg naar een theorie van voorlichting' [A search for enlightenment. Communication science and its first step towards a theory of enlightenment]. Nijmegen: KU Nijmegen.

Norman, Donald A.(1990), "The Design of Everyday Things". New York: Doubleday.

Novotny, P. (2000). "From Polis to Agora: The marketing of political consultants". Harvard International Journal of Press/Politics, 5, 12–26.

Nwaokolo, Amaka (2015) "How Information and Communication Technology is Influencing the rise of Entrepreneurship in Nigeria", published by FATE Foundation. November 24, 2015.

Oates, S., Owen, D. & Gibson, R., eds. (2006). "The internet and politics", London, UK: Routledge.

Obijiofor, L., & Green, K. (2001), "New technologies and the future of newspapers". Asia Pacific Media Educator, 11, 88–99.

O'Brien, J.A. (1996). "Management information systems: Managing information.

Ochieng, R.O (1999). "Rural women and information in Uganda" Available at <http://www.fao.org/docrep/x3803e/x3803e23.htm>

Oddoye, B. M. (1979). "The role of libraries of Council for Scientific and Industrial Research in Ghana's scientific research effort." (Unpublished M.A. Dissertation submitted to the Department of Information Studies, University of Ghana, Legon). 1-1-2012.

Odufuwa, F. (2012). "Understanding what is happening in ICT in Nigeria: A Demand and Supply Side Analysis of the ICT Sector". Evidence for ICT Policy Action, Policy Paper 6, 2012.

OECD / OCDE (2008): "Malicious Software (Malware): A Security Threat to the Internet Economy", OECD Ministerial Meeting on the Future of the Internet Economy, Seoul, Korea.

Ogbomo, M. O., & Ogbomo, E. F. (2008.). "Importance of Information and Communication Technologies (ICTs) in Making a Healthy Information Society: A Case Study of Ethiopia East Local Government Area of Delta State, Nigeria". Retrieved February 19, 2018, from <http://www.webpages.uidaho.edu/~mbolin/ogbomo2.htm>

Ogu, E.C. & Oyerinde O.D. (2014), "ICT and National Security in Developing and Underdeveloped Countries –The Good, the Bad, and the Ugly: A Case Study of Nigeria's Cyberspace", International Journal of Computer Science and Information Technologies, Vol. 5 (4), 2014, 5625-5633

Okonji, E. (2013). "Nigeria: 'Johnson -Our Priority Is On Local Content Development'" ThisDay Newspapers <http://allafrica.com/stories/201307080872.html>- Retrieved on 17Jan 2015.

Okonji, E. (2014). "Nigeria: 'Multiple Taxes, High Cost of Right of Way, Inimical to Telecoms Growth'". AllAfrica. Retrieved February 21, 2018, from <http://allafrica.com/stories/201405220879.html>

Oladeji, (2012) "Evaluate the relevance of ICT to the development of electronic media in Nigeria" 'PhantomX: Mindset of a Genius-Mass Communication'. <https://babafemijacobs.wordpress.com/2012/08/15/evaluate-the-relevance-of-ict-to-the-development-of-electronic-media-in-nigeria/> Retrieved on 20 Dec 2014.

Oladele, O. (2006). "Multi linguality of farm broadcast and agricultural informationAccess in Nigeria." Nordic J. Afr. Studies 15(2): 199-205, Available at <http://www.njas.helsinki.fi/pdf-files/vol15num2/oladele5.pdf>

Olaniyi, S. S. (2006) "e-Learning Technology: The Nigeria Experience p.2-3. A paper presented at the Shape the Change XXIII FIG Congress Munich Germany", October 8-13, 2006.

Olubamise, B (2006). "The information society and Nigeria. Jidaw systems limited". Retrieved December 07, 2016 from <http://www.jidaw.com/digitalnigeria.html>

Olivier de Sardan, J.P. (1999). " A moral Economy of Corruption in Africa?", "Journal of Modern Africa Studies 37: 508-35

Olssen M. (1999) "Michel Foucault: Materialism and Education", Publisher: Bergin & Garvey. Place of publication: Westport, CT.

Opoku, R.A (2004). "Ghana and ICT: Strides, Challenges and the way forward" . Accessed on 07 June 2017 <https://www.modernghana.com/news/113827/ghana-and-ict-strides-challenges-and-the-way-forward.html>

Outhwaite, R.W. (1987), "New Philosophies of Social Science : Realism, Hermeneutics and Critical Theory", Basingstoke, Macmillan.

Ozowa, V.N (1997). "Information Needs of Small Scale Farmers in Africa: The Nigerian Example", Available at <http://agris.fao.org/agris-search/search.do?recordID=GB9599015>

Ozuem, W., Howell, K. and Lancaster, G. (2008) "Communicating in the interactive marketspace", European Journal of Marketing, Vol. 42, Nos. 9/10, pp.1059–1083.

Ozuem, W., Howell, K.E. and Lancaster, G. (2016) "Understanding technologically-induced customer services in the Nigerian banking sector: the internet as a post-modern phenomenon", Int. J. Information Technology and Management, Vol. 15, No. 3, pp.272–290.

- Ozuem. W, Howell.K.E., Lancaster, G, (2008),"Communicating in the new interactive marketspace", *European Journal of Marketing*, Vol. 42 Iss 9/10 pp. 1059 – 1083.
- Palonen, K. (1999). "Max Weber's reconceptualization of freedom. *Political Theory*", 27, 523-544.
- Parsons, T. (1991). "The Social System". London: Routledge.
- Patton, M. Q. (1990). "Qualitative Evaluation and Research Methods". Newbury Park, CA: Sage.
- Patton, M. Q. (2002) "Qualitative Research and Evaluation Methods", 3rd edition, Thousand Oaks, CA: Sage.
- Perera, M. H. B. (1989), "Towards a framework to analyse the impact of culture on accounting", *The International Journal of Accounting*, 24, pp.42-56.
- Perlovsky, L. (2013). A challenge to human evolution cognitive dissonance. *Frontiers in Psychology*, 4, 179
- Pettigrew, S. (2000), "Ethnography and grounded theory: a happy marriage?", *Advances in Consumer Research*, Vol. 27, pp. 256-60.
- Pew Research Centre (2004) "Internet & Technology: e-politics ": accessed 07 June 2017: <http://www.journalism.org/2004/02/05/epolitics-2004/>:
- Phillips and Burbules, (2000) "Rowan & Littlefield Postpositivism and Educational", Research Publisher.inc Lanhan.Bouder.New York Oxford.
- Phillips, D.M, von Spakovsky H.A. (2001), "Gauging the risks of Internet elections", *Communications of the ACM*, Vol. 44, No.1, pp 73-85.
- Polkinghorne, D. E. (1995). "Narrative configuration in qualitative analysis". *Qualitative Studies in Education*, 8(1), 5–22
- Popper, K. R. (1979). "Objective Knowledge: An evolutionary approach". Oxford, Oxford University Press.
- Prichard, H. A. (1949). "Moral Obligation: Essays and Lectures", Oxford: Clarendon Press.
- Pringle, I. and David, M.J.R. (2002) 'Rural community ICT applications: the Kothmale model', *The Electronic Journal on Information Systems in Developing Countries*, 8, 4: 1-14.
- Prior, L. (2011) "Using documents in social research", in D. Silverman (ed.),

Qualitative Research Issues of Theory, Method and Practice, 3rd edition (pp.94-111), London: Sage.

PUF. Lewin, K. (1951), 'Field theory in social science', Harper and Row.

Punch Newspapers (2016). '216 million telephone lines connected' Published Accessed May 5, 2016 on: <http://punchng.com/216-million-telephone-lines-connected-ncc/>

Putman R.D (2000), 'Bowling alone: The Collapse and revival of American Community'. New York: Simon & Schuster.

Putnam, L. L., & Pacanowsky, M. E. (Eds.). (1983). "Communication and organizations. An interpretive approach". Beverly Hills: Sage.

Quinlan. C. (2011) "Business Research Methods", Hampshire: EMEA Publications.

Radford, G. P., & Radford, M. L. (2005). "Structuralism, post-structuralism, and the library: de Saussure and Foucault". *Journal of Documentation*, 61(1), 60-78.

Rainie, L., Cornfield, M., & Horrigan, J. (2005). "The Internet and campaign 2004". Retrieved 07 may 2016 <http://www.pewinternet.org/2005/03/06/the-internet-and-campaign-2004/>

Reinharz, S. (1997). "Who am I? The need for a variety of selves in the field". In R. Hertz (Ed.), *Reflexivity and voice* (pp. 3-20). Thousand Oaks, CA: Sage.

Rhodes, R. A. (1997). "Understanding governance: Policy networks, governance, reflexivity and accountability". Buckingham, England: Open University Press.

Rice J.C. and Sirak, M. (1994). "Logistic Regression: An Introduction." In *Advances in Social Science Methodology*, Vol. 3, edited by B. Thompson, 191-245. Greenwich, CT: JAI Press.

Rice, R.E. (1992), "Task Analyzability, Use of New Media, and Effectiveness: A Multi-Site Exploration of Media Richness," *Organization Science*, Vol. 3, No. 4, 1992, pp. 475-500.

Ricoeur, P. (2008), "From Text to Action", Continuum Press, London

Ricoeur P. (2004), "The Conflict of interpretations". London Continuum

Riley, T.B., (2000). "Electronic governance and electronic democracy : Living and working in the wired world". London: Commonwealth Secretariat

Robson, A., & Robinson, L. (2013). "Building on models of information behaviour: linking information seeking and communication". *Journal of documentation*, 69(2), 169-193.



- Roeller, L.H. and Waverman, L. (2001), "Telecommunications infrastructure and economic development: a simultaneous approach", *The American Economic Review*, Vol. 91, pp. 909-23.
- Rosengren, K. E. (2000). "Communication, an introduction". London: Sage.
- Rubin, H. J. and Rubin, I. S. (1995) "Qualitative Interviewing", Thousand Oaks, CA: Sage.
- Russell, B. (2013). "History of western philosophy": Collectors edition. Routledge.
- Salamon, L. M. (2002). "The new governance and the tools of public action: An introduction". In L. M. Salamon (Ed.), "The tools of government: A guide to the new governance", New York: Oxford University Press.
- Salau, G. (2015). "Using new media to enhance communication education, practice", *Guardian.com*. Retrieved March 8, 2018, from <https://guardian.ng/issue/using-new-media-to-enhance-communication-education-practice/>
- Salman. A.A and Amusa, O.I (2011), "Business Planning, Information Preference, and Information Use as Factors in Banking Operations in Nigeria", *Library Philosophy and Practice* 2011 ISSN 1522-0222
- Samuel A.I (2010), "Using ICTs to Bridge the Agricultural Extension Gap and in Providing Market Access for Rural Farmers in Nigeria: A practical Approach" (<http://www.cigr.org/Proceedings/uploads/2013/0169.pdf>). Accessed 24/11/2015.
- Sarantakos, S., (2012). "Social research". s.l.:Palgrave Macmillan.
- Schamber, G (2001), "Habermas, Critical Theory And Health" (edited) Routledge, London.
- Schein, E. (2004), "Organisational Culture and Leadership", 3rd edition, San Francisco, California: Jossey-Bass.
- Schein, E. H. (1984) 'Coming to a new awareness of organisational culture', *Sloan Management Review Journal*, 25 (2), pp.3-16.
- Schensul, Jean J (2008). 'Methods'. In Given, Lisa M. 2008 (eds). *The SAGE Encyclopedia of Qualitative Research Methods Volumes 1 & 2*. USA
- Schmidtke O. (1998) "Berlin in the Net: Prospects for cyberdemocracy from above and below" In *Cyberdemocracy. Technology, Cities and Civic Networks*, R Tsagarousianou, D Tambini, C Bryan (Eds.), Routledge, London, pp 60-83.
- Schramm. W (1965), 'The Process and Effects of Mass Communication', 6th ed. Urbana, IL: University of Illinois Press.

Schwartz, S. H. (1999) 'A theory of cultural values and some implications for work', *Applied Psychology: An International Review*, 48(1), pp.23-47.

Scambler, G. (Ed.). (2013). 'Habermas, critical theory and health'. Routledge.

Seidler, J. 1974. On using informants: a technique for collecting quantitative data and controlling measurement error in organization analysis. *American Sociological Review* 39:816-831.

Seiman, E. I. (1991) 'Interviewing as Qualitative Research: A Guide for Researchers in Education and the Social Sciences', New York: Teachers College Press.

Senigaglia c. (2011). "Max Weber and the parliamentary bureaucracy of his time": Parliaments, Estates and Representation Publication details, including instructions for authors and subscription information.

Shand, R (2013). 'Governing Sustainable Urban Renewal: Partnership in Action': Routledge; London and New York.

Shannon, C. E., & Weaver, W. (1949). 'The mathematical theory of communication. Urbana': University of Illinois Press.

Shaw, C. K. Y. (1992). 'Hegel's theory of modern bureaucracy'. *American Political Science Review*, 86, 381-389.

Shaw, M. (2004). 'Housing and public health'. *Annual Review of Public Health*, 25, 397-418.

Shenton, A.K. (2002). 'The characteristics and development of young people's information universes', PhD Thesis, Northumbria University.

Sheweder, R. A. and Levine, A. R. (1984) 'Cultural Theory: Essays on Mind, Self and Emotion', New York: Cambridge University Press..

Shleifer, and Robert W. Vishny. (1997). 'Privatisation in the United States'. *Rand Journal of Economics* 3(8):447 – 471.

Shore, L. M., Tetrick, L. E., & Barksdale, K. (1999). 'Measurement of transactional and exchange relationships'. Paper presented at the annual meeting of the Society for Industrial and Organizational Psychology, Atlanta, GA.

Shore, L.M., Tetrick, L.E. Taylor, MS, Coyle-Shapiro, J.A.M, Liden, R.C., Parks, J.M, et al. (2004), 'The employee organisation relationship: remedy concept in a period of transistion'. In J.J., Martocchio (ED) *Research in Personal and Human Resources Management*, (Vo;. 23.p.291.370) Oxford Elsevier

Silverstone, R. (2006), 'Domesticating domestication. Reflections on the life of a

concept'. In: Berker, T., Hartmann, M., Punie, Y. & Ward, K. (eds.) *Domestication of media and technology*. Berkshire: Open University Press

Singh, J.P. (2013). 'Information Technologies, Meta-Power, and Transformations in Global Politics'. *International Studies Review* 15(1): 5–29. ICT

Sitkin, S. B. & Pablo, A. L. (1992). 'Reconceptualizing the determinants of risk behaviour', *Academy of Management Review*, 17, 9–38.

Skinner Q (2002). 'Visions of Politics, Cambridge', Cambridge University Press, 2002, vol. 2, p. 2

Smith, P. B., Peterson, M. F. and Schwartz, S. H. (2002) 'Cultural values, sources of guidance and their relevance to managerial behaviour: A 47-nation study', *Journal of Cross-Cultural Psychology*, 33(2), pp.188-208.

Smith MD, Krannich RS and Hunter LM (2001) 'Growth, decline, stability, and disruption: A longitudinal analysis of social well-being in four western rural communities'. *Rural Sociology* 66(3): 425–450

Smith, S. J. (1997). 'The phenomenology of educating physically'. In D. Vandenburg (Ed.), *Phenomenology and educational discourse*. Durban: Heinemann.

Snow, D.M (1987). 'National Security: Enduring problems of US defence policy'. St. Martins Press.N.Y.

Soanes, C., & Stevenson, A. (2009). 'Oxford dictionary of English'. Oxford: Oxford University Press.

Sobalaje, A. J and Adigun, G.O (2013) 'Use of Information and Communication Technologies (ICTs)' by Yam Farmers in Boluwaduro Local Government Area of Osun State, Nigeria.' *Library Philosophy and Practice* (e-journal) Libraries at University of Nebraska-Lincoln.

Stange, K. C., Crabtree, B. F., & Miller, W. L. (2006). 'Publishing multimethod research'. *Annals of Family Medicine*, 4(4), 292-294

Stebbins, R. (1997), "Lifestyle as a generic concept in ethnographic research", *Quality and Quantity*, Vol. 31 No. 4, pp. 347-60.

Steinmo, S. (1993). 'Taxation and democracy: Swedish, British and American approaches to financing the modern state'. New Haven, CT: Yale University Press.

Stewart, J. and Winter, R. (1995), 'Open and distance learning', in Truelove, S. (Ed.) (1995), *The Handbook of Training and Development*, Blackwell, Oxford, pp. 201-34.

Stoker, G. (1998). *Governance as theory: Five propositions*. *International Social Science Journal*, 50, 17–28.

Straßheim, J. (2009) *Relevance theories of communication: Alfred Schutz in dialogue with Sperber and Wilson*, Institut für Philosophie, Freie Universität.

Strauss, A. (1987) *'Qualitative Analysis for Social Scientists'*, Cambridge: Cambridge University Press.

Strauss A. and Corbin J (1990/1998) *'Basic of Qualitative Research: Techniques and Procedures for Developing Grounded theory'*. Thousand Oaks, CA: SAGE Publications, pp 455-86.

Strauss, A.L. and Glaser, B.G. (1967) *'The Discovery of Grounded Theory: Strategies for Qualitative Research'*, Chicago: Aldine de Gruyter.

Susskind, L., McKernan, S., & Thomas-Larmer, J. (Eds.). (1999). *'The consensus building handbook. A comprehensive guide to reaching agreement'*. Thousand Oaks: Sage.

Sutherland, E. (2007). *'Mene, mene, tekkel, upharsin: Counting mobile phones, SIM cards & customers'*. Retrieved on July 7, 2017 from <http://LINK.wits.ac.za/>.

Swain, J. (2002), *'Machiavelli and modern management'*, *Management Decision*, 40.3, 281-87.

Tarcov, N. (2013). *'Belief and Opinion in Machiavelli's Prince'*. *The Review of Politics*, 75(4), 573-586.

Taylor, A (2002) *"Hollowing out or Filling in? Taskforces and the management of crosscutting issues in British Government"*, *British Journal of Politics and International Relations* 2 (1). 46-71.

Tcheng, H., Jean-Michel H., Viennois, I. and Romdhane, M., (2007) *'Telecoms and development in Africa: The chicken or the egg?'* *Convergence Letter* No 8, 2007.

Tettey, W. (2001). *'Information technology and democratic participation in Africa'*. *Journal of Asian And African Studies* 36 (4), 133-153.

Thayer L.O (1968) *'Communication and communication systems in organization, management, and interpersonal relations'*, Published in 1968 in Homewood (Ill.) by Irwin

The Advisory Committee on Measuring Innovation in the 21st Century. (2008). *'Innovation measurement, tracking the state of innovation in the American economy'*. Report to the Secretary of Commerce: Washington D.C.

The Teacher: *'Health and Safety: Teaching and Revision Notes'*. (2009); Accessed on 10 August 2016  
[http://moodle.nptcgroup.ac.uk/file.php/1/Content\\_Library\\_CIT/TheTeacher2009/ict/ict](http://moodle.nptcgroup.ac.uk/file.php/1/Content_Library_CIT/TheTeacher2009/ict/ict)

1\_80.htm

Thioune, R.M.C. (2003). 'Information and communication technologies for development in Africa: Opportunities and challenges for community development'. Volume 1. Ottawa: IDRC. <http://www.idrc.ca>.

Ting-Toomey, Stella. (2004). "Translating Conflict Face-Negotiation Theory into Practice." In *Handbook of Intercultural Training*, 3rd edition, eds. Dan Landis, Janet M. Bennett, and Milton J. Bennett. pp. 217-248. Thousand Oaks, CA: Sage.

Touray, A., Salminen, A., & Mursu, A. (2013). 'ICT barriers and critical success factors in developing countries'. *The Electronic Journal of Information Systems in Developing Countries*, 56(1), 1-17.

Tracy K & Craig R. (1995). 'Grounded Practical Theory: The Case of Intellectual Discussion: Communication Theory', Volume 5, Issue 3, 1 August 1995, Pages 248–272, <https://doi.org/10.1111/j.1468->

Trompenaar, F. (1993) 'Riding the Waves of Culture: Understanding Cultural Diversity in Global Business', Burr Ridge, IL: Irwin.

Turner, F. J. (2011). (Ed.). 'Social Work Treatment: Interlocking Theoretical Approaches', *Journal of Social Work Education* Publisher: Council On Social Work Education Audience: Academic; Professional.

Tsagarousianou R. (1999) "Electronic democracy: Rhetoric and reality", *Communication*, *The European Journal of Communication Research*, Vol 24, No.2) pg.189-208.

Tsagarousianou R, Tambini D, Bryan C (Eds.) (1998) 'Cyberdemocracy. Technology, Cities and Civic Networks', Routledge, London.

Uhegbu, A. and Igwe, I. (2006). 'Information and communication technology (I.C.T) and the millennium development goals'. *Information Technologist*. 3: 2: 97-109

UNDP (2001) *Human Development Report: "Making New Technologies Work For Human Development"* : New York, 2001

UNECA. (1996). 'What is AISI?' Retrieved on July 7, 2017 from <http://www.uneca.org/aisi/>

Ure J. Vivorakij A (1996) 'Telecommunication and Privatization in Asia'. Paper presented at 23<sup>rd</sup> Pacific trade and development conference on business, markets and government in the Asia Pacific, Taiwan Institute of Economic Research, Taiwan, 8-11 December 1996.

Van Manen, M. (1990). 'Researching lived experience: Human science for an action sensitive pedagogy'. London, ON, Canada: Althouse Press.

- Van Ruler B. (2004). *Public Relations Review* 30 (2004) 123–143
- Van Ruler, B. (1999). 'The dialogue as a method'. Discussion paper, written for the Institute Church and World, Driebergen, The Netherlands ([www.kerkenwereld.nl](http://www.kerkenwereld.nl)—In Dutch and English).
- Venansius Baryamureeba (2014): 'VC UTAMU ICT Integration in Higher Education: My Perspectives and Way Forward' : accessed 07 August 2017: <https://www.slideshare.net/elvo8k/ict-integration-in-higher-education-my-perspectives-and-way-forward>
- Vinten, G. (1998) 'Corporate governance: An international state-of-the-art', *Management Auditing Journal*, 13(7), pp.419-431.
- Viroli, M. (1998), 'Machiavelli', Oxford University Press, Oxford.
- Weber, M. (1946), 'Science as a Vocation', in H. H. (W. Mills (eds) *From Max Weber*, New York: Oxford University Press.
- Webster, J., et Trevino, L.K. (1995), "Rational and social theories as complementary explanations of communication media choices: two policy- capturing studies", *Academy of management journal*, Vol 38, issue 6, Dec, p. 1544-1572.
- Weinshall, M. (2003). 'Means, ends, and public ignorance in Habermas' theory of democracy. *Critical Review*, 15, 23–58.
- Whisnant, C (2012) 'Differences between structuralism and post –structuralism' [http://www.wofford.edu/whisnantcj/his389/differences\\_struct\\_poststruct.pdf](http://www.wofford.edu/whisnantcj/his389/differences_struct_poststruct.pdf)
- Whitfield J.H (2016), 'Encyclopedia Britannica' <http://www.britannica.com/contributor/John-Humphreys-Whitfield/3190> : access 19 April 2016.
- WHO (2007) 'Electromagnetic fields and public health; Exposure to extremely low frequency fields'; accessed 07 June 2017: <http://www.who.int/peh-emf/publications/facts/fs322/en/>
- Wilhelm, A. G. (2000). "Democracy in the digital age". London, UK: Routledge.
- Williamson, Oliver, E.. (2005). "The Economics of Governance." *American Economic Review*, 95 (2): 1-18. DOI: 10.1257/000282805774669880
- Williams, R. (1962). "The Long Revolution". New York: Columbia University Press.
- Williams, R. (1962/1966). "Communications", London: Chatto & Windus.
- Wilson, H., & Hutchinson, S. (1991). 'Triangulation of qualitative methods: Heideggerian hermeneutics and grounded theory'. *Qualitative Health Research*, 1, 263-276.

Winston, B. (1998) 'Media Technology and Society: A History from Telegraph to the Internet', Routledge: London.

Wong, Y. Y. and Birnbaum-More, H. P. (1994) 'Culture, context and structure A test on Hong Kong banks', *Organisation Studies*, 15(1), pp.99-123.

World Bank, (2006), 'Information and communication for Development', *Global trends and policies* 15 (2006). World Bank, *supra* note 3, at 17.

World Bank. (2003). 'The World Bank Annual Report 2003' : Volume 1. Year in Review. Washington, DC. © World Bank.  
<https://www.openknowledge.worldbank.org/handle/10986/13929> License: CC BY 3.0 IGO."

World Bank. (2005). 'World Development Report 2006 : Equity and Development'. Washington, DC. © World Bank.  
<https://openknowledge.worldbank.org/handle/10986/5988> License: CC BY 3.0 IGO."

World wide web foundation (2014) 'ICTs for Empowerment of Women and Girls: A research and policy advocacy initiative on empowering women on and through the web in 10 countries' Project Background Report November 2014.

Yamoah .F, Yawson.D, Frimpong O, (2016) "The Role of Organisational and Informational Factors Affecting Knowledge Utilisation in Agri-food SMEs" Conference: Academy of Marketing. Centre for Research and Enterprise London School of Business and Management Dilke House 1 Malet Street London England WC1E 7JN

Yates, JoAnne, and Robert I. Benjamin. (1991). 'The past and present as a window on the future'. In *The corporation of the 1990s*, ed. Michael Scott Morton, 61-92. New York: Oxford University Press.

Zaheer, A., & Venkatraman, N. (1995). 'Relational governance as an interorganizational strategy: An empirical test of the role of trust in economic exchange'. *Strategic Management Journal*, 16(5), 373–392.

Zahra, S., & Pearce, J. (1989). 'Boards of directors and corporate financial performance: A review and integrative model'. *Journal of Management*. 15: 291-244

Zarefsky, D. (2014). 'Strategic maneuvering through persuasive definitions: Implications for dialectic and rhetoric. In *Rhetorical Perspectives on Argumentation*' (pp.129-143). Springer. Cham.

Zelditch, M.Jr. 1962. Some methodological problems of field studies. *The American Journal of Sociology* 67:566- 576

Ziliani, C. and Bellini, S. (2004), "From loyalty cards to micro-marketing strategies:

where is Europe's retail industry heading?", *Journal of Targeting, Measurement and Analysis for Marketing*, Vol. 12 No. 3, pp. 281-9.



## APPENDIX 1: UNIVERSITY APPROACH LETTER

To Whom It May Concern

This letter is to introduce **Mr Kosmos Ebenezer Akande-Alasoka** a Doctoral in Public Administration (DPA) Research student at the University of Plymouth Business School in the UK.

Mr Alasoka is conducting research on the topic: “Communication and Governance the Case of Nigerian”. The purpose of the enclosed survey questionnaire is to help identify and understand the impacts of communication in the infrastructural developments in Nigeria and to identify the problems facing the industry and suggest solutions. Your thoughts will contribute towards the development of a substantive theory on efficient communication services in Nigeria.

It would be appreciated if you would identify a key person in your organization that is knowledgeable about the issues in the questionnaire. We also wish to confirm that the university’s Research and Ethics Committee has reviewed this study; any information obtained will be treated with the utmost confidentiality.

In addition, organisations and persons providing information will not be mentioned or disclosed, and participants will be provided with a summary of the interviews, analysis and interpretations of the research, if they so require.

The university counts on organisations and communities to assist research students in their data collection for research purposes. We would therefore appreciate your organisation’s assistance.

Yours Sincerely,

A handwritten signature in black ink, appearing to read 'K. Howell', with a stylized flourish at the end.

Professor Kerry E. Howell  
Professor of Governance & Leadership  
Plymouth Graduate School of Management

## **APPENDIX 2: SEMI-STRUCTURE INTERVIEW AND FOCUS GROUP QUESTIONS**

### **APPENDIX 2: Semi-Structure Interview and Focus Group Questions**

#### **Interview questions**

1. In what ways has ICT contributed to development in Nigeria?
2. How useful is ICT to governance in Nigeria
3. What do you appreciate most about using the ICT -Internet and mobile device?
4. When and where do you find yourself using your mobile device? (Please briefly describe the situations / environments in which you use it.
- 5 How has bureaucracy slowed down the benefits of ICT in Official engagements?
6. Do culture and tradition negatively impact on communication in parts of Nigeria? How?
- 7: What do you find frustrating in the use of ICT, in particular with the mobile device?
- 8 What are the problems and challenges facing the communication industry in Nigeria?
9. What will you proffer as solutions to the ICT problems in Nigeria?

## APPENDIX 3: LIKERT SCALE QUESTIONNAIRE AND ANALYSIS

### SURVEY QUESTIONS:

#### SECTION A: USAGE OF ICT IN COMMUNICATIONS

To what degree do you use your Internet-enabled mobile device for the following activities?

	Always	Frequently	Occasionally	Rarely	Never
Social networking	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reading content (e.g., e-books, articles, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Getting news alerts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Accessing email	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Text messaging	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Searching for information	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Getting directions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Uploading content	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Playing games	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Listening to music or	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

watching videos					
Completing coursework or participating in lectures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### Interview questions

5) When and where do you find yourself using your mobile device? (Please briefly describe the situations / environments in which you use it.)

---



---



---

6) What do you appreciate the most about using the ICT -Internet and mobile device?

---



---

7) What is the most frustrating thing about using applications and/or the Internet on your mobile device?

---



---

8) Any other comments about your mobile device use or this survey?

---



---



---

## SECTION B:

### BENEFITS AND CHALLENGES OF ICT USAGE IN NIGERIA

*Please read the following statements and tick the answer which best fits what you think about the ICT in Nigeria in the last 15 years. Please only tick one box per statement. And make your comments in items 20, 21 and 22.*

S/N 0	Questions	Strongly agree	Agree	Disagree	Strongly disagree
1	ICT has made communication flow easy and faster since year 2000 in Nigeria:				
2	ICT adoption facilitates timely information processing and distribution.				
3	Development of ICT facilities has made timely preparation and distribution of policy documents.				
4	ICT usage has positive and significant impacts on the speed of operations and service delivery, productivity and the profit level of companies in Nigeria.				

5	ICT operation in Nigeria in the last 15 years has encouraged a general boom in business				
6	ICT has made financial transaction easier with financial institutions and helps in pay rolling exercises in both the private and public sectors.				
7	ICT is a useful medical apparatus for diagnosis and other health needs.				
8	Agriculture has benefited a great deal from ICT in Nigeria				
9	ICT has helped to improve weather reports, hence helping to save and secure life and property				
10	In the last 15 years ICT has contributed greatly to the infrastructural development of Nigeria.				
11	ICT has made learning and education at all				

	levels easier and better				
12	ICT has improved the Libraries services in Nigeria.				
13	ICT is a useful training tool for courses, workshops and conferences in matters relating to government.				
14	Despite the adoption of ICT in government activities the day running of its business, bureaucracy has not been eradicated.				
15	Bureaucracy in administering communication policies encouraged sharp practices and has slowed down the full benefits of ICT in Official engagements.				
16	Freedom of Information Bill in Nigeria will further promote access and flow of information				

	and communication.				
17	The Communication regulatory body in Nigeria such as the Nigeria Communication Commission (NCC) has created a suitable environment for competition among operators in the industry and has ensured a qualitative and efficient telecommunications services throughout the country.				
18	High cost of ICT facilities hinders communication benefits				
19	Does culture and tradition/Religion hinder communication in parts of Nigeria?				
20	What would say are the problems and challenges facing the communication industry in Nigeria.				
21	What will you proffer as solutions to the problems?				



## APPENDIX 4: INFORMATION ABOUT THE SEMISTRUCTURED INTERVIEW

	Research Site	Number of Participants	Position
1	Federal Ministry of Information and Youth Development (Radio House)	2	Directors
2		4	Executives
3	Federal Ministry of Communication Technology (Secretariat)	3	Directors
		4	Executives
4	Nigerian Communication Commission (NCC)	2	Directors
		2	Technical Experts
5	Nigeria Broacasting Corporation (NBC)	1	Director
6	Nigeria Television Authority (NTA)	2	Managers
7	News Agency of Nigeria (NAN)	4	Journalists
8	Federal Radio Corporation of Nigeria (FRCN)	2	Lower Executive Staff
9	National Information Technology Development Agency (NITDA)	3	Technicians
10	National Assembly	2	Politicians
11	Private Entrepreneurs	2	Lawyers
		3	Doctors
		1	Businessman
		2	Industrialists
12	Students' Campus	2	Lecturers
		3	Other Staff

		5	Students
13	Telephone Network Service Provider	3	Executives
	Total	52 Interviews	

## APPENDIX 5: RELATIONSHIP BETWEEN SURVEY QUESTIONS AND SEMI-STRUCTURED INTERVIEW QUESTION FORMATION

Survey Significant Areas	Related Semi-Structured Interview questions
Service Providers	Questions more on challenges
Regulators, Managers and Stakeholders	Questions were ICT benefits based
Users	Based on benefits and challenges

## APPENDIX 6: INFORMATION ABOUT THE PARTICIPATION OF THE FOCUS GROUP DISCUSSION

	Research Site	Number of Participants	Position
	Press Chambers (National Assembly (ABUJA))	1	Managers, and regulators of ICT products
		1	ICT expert/businessmen
		1	Lawyer
		1	Medical Practitioner:
		1	Industrialist:
		1	Entrepreneur:
		1	Student as Consumer