

**Data Literacy Skills and Service Delivery of Health Information Management
Professionals in Tertiary Hospitals, Bayelsa State, Nigeria**

**Ebimene Japheth Teddy KUROKEYI
LCU/PG/002319**

**Being a MSc. Thesis Submitted to the Department of Information Management,
Faculty of Communication and Information Sciences,
Lead City University, Ibadan, Oyo State,
Nigeria.**

**In Partial Fulfillment of the Requirements for the Award of Master Degree (MSc.) in
Health Information Management.**

2023

Certification

This is to certify that this thesis was carried out by **Ebimene J. Teddy KUROKEYI** with Matriculation Number **LCU/PG/002319** a student in the Department of Health Information Management under my supervision in the Faculty of Communication and Information Science, Lead City University, Ibadan, Nigeria

Bakare, Oluwabunmi D. PhD

Date Supervisor

Sophia V. Adeyeye PhD

Date Head of Department

Dedication

This project work is dedicated to the Almighty God

Do Not Copy, Lead City University, Nigeria

Acknowledgement

My appreciation goes to the management and staff of Lead City University, Ibadan for providing the needed support and conducive environment for learning during the course of my study and in conducting this research. I am grateful to staff and management of Federal Medical Centre, Yenagoa and Niger Delta University Teaching Hospital, Bayelsa State, that provided data for this study as well as the services provided by staff of the Library in Lead City University, Ibadan, Oyo State.

I also use this privilege to acknowledge the immeasurable support and intellectual contribution of my able supervisor, Dr. Bakare, D. Oluwabunmi, the Head, Department Information Management, Dr. Sophia Adeyeye for her guidance, understanding and constructive criticism which have contributed to the quality and success of this work. To Prof. L.A Abioye, the dean of the Faculty of Communication and Information Science, Lead City University, and all lecturers in the Faculty, I appreciate the opportunity given to me to acquire knowledge in the chosen field. To the Provost, school of Postgraduate studies, Prof. Afolakemi Oredein and other members of staff of the Postgraduate School, Lead City University, I say thank you for providing a very conducive environment for learning and support during my programme in the University. I am grateful to all lecturers of Information Management Department Prof. E.A. Erwat, Dr. T.E. Adenekan, Dr. O. D. Bakare, Mr. P.B. Olusola, Dr. Dr. S.O. Tunmibi (PG coordinator), Dr. K. Lateef, Dr. O. O. Ajibare, Dr. F. B. Oguntoye, Mrs. K.O. Popoola, Mrs. O.A. Ologbosere, Mr. I. A. Adeniran, Mr. M. E. Oguwumiju, Mrs. O. R. Akinpelu, Mrs. V. O. Ahamze, and Mr. A. A. Adeyemi, I say a big thank you.

A million and heartfelt thanks to my family members, my wonderful friends and also to all my course mates who have contributed in one way or the other, may God richly bless you all, Amen.

Even though the above-mentioned institutions and persons have assisted in the process of this project work, I alone stand responsible for the error(s) if any, found in this work”.

Do Not Copy, Lead City University, Nigeria

Abstract

Service delivery is the bedrock of every organization, and as such Health information management professionals is pivotal to this crucial role through constant interaction with patients on a daily basis. These roles can only be acted upon swiftly if they are data literate and competent. A situation whereby these factors are not in existence, there is every tendency that health information management professionals will face service delivery protest. It is against this backdrop this study considers it apt to investigate the influence data literacy skills (DLS) and service delivery (SD) of health information professionals in tertiary hospitals in Bayelsa state. Mixed method research design was adopted. Population consists of 78 health information management professionals in tertiary hospitals in Bayelsa state, served as the sample size and two focus group of patients with twelve in each were included in the study for better judgement. Total enumeration sampling technique was adopted as the sampling technique for this study. The reliability coefficient for each of the variables is 0.99 and 0.99. Data collected was analyzed using descriptive and inferential statistics. Findings revealed that, jointly, DGS, DSS, DPS and DVS were found to have significant influence on SD (Adj. $R^2 = -0.555$; $p = 0.000$), was also found to significantly influence SD (Adj. $R^2 = 0.821$; $p = 0.000$), also found to significantly influence SD (Adj. $R^2 = 0.803$; $p = 0.000$) and DVS was also found to statistically significantly influence SD (Adj. $R^2 = 0.861$; $p = 0.000$). The study concluded that both DGS, DSS, DPS did independently and jointly influence service delivery, while DVS relatively influence and is not significant. In the shed light of this, the study recommended that organizational heads of tertiary hospitals and regulatory bodies should promote data literacy skills that will increase service delivery.

Key Words: Data Literacy skills, Service delivery, Tertiary hospitals, and Health information management professionals (HIMps).

Word Count: 294

Table of Contents

Content	Page
Title Page	i
Certification	ii
Dedication	iii
Acknowledgement	iv
Abstract	vi
Table of Contents	vii
List of Tables	x
List of Figures	xi
Chapter One: Introduction	
1.1 Background to the Study	1
1.2 Statement of the Problem	11
1.3 Aim and Objectives of the Study	12
1.4 Research Questions	13
1.5 Hypotheses	13
1.6 Significance of the Study	14
1.7 Scope of the Study	15
1.8 Limitation of the Study	16
1.9 Operational Definition of the Terms	16
Endnotes	19

Chapter Two: Literature Review	21
2.1 Conceptual Review	22
2.1.1. Overview of Service Delivery	22
2.1.2. Overview of Data Literacy	36
2.2 Theoretical Frameworks	56
2.2.1. Theory of Human Service Delivery	56
2.2.2. Data Literacy Competency Model	57
2.3 Review of Empirical Studies	64
2.3.1 Service delivery	64
2.3.2. Data Literacy and Service Delivery	73
2.4 Conceptual Framework	91
2.5 Summary of Literature Reviewed	92
Endnotes	96
Chapter Three: Methodology	
3.1 Research Design	110
3.2 Population of the Study	110
3.3 Sample Size and Sampling Technique	111
3.4 Description of the research Instrument	111
3.5 Validity of the Instrument	113

3.6	Reliability of the Instrument	113
3.7	Method of Data Collection	114
3.8	Method of Data Analysis	115
	Endnotes	116
 Chapter Four: Results and Discussion of Findings		
4.1	Questionnaire Response Rate	118
4.2	Demographic Data Analysis of Respondents	119
4.3	Presentation of Research Questions	122
4.4	Presentation of Hypotheses	131
	Thematic Content Analysis of Focus Group	141
4.5	Discussion of Findings	143
	Endnotes	151
 Chapter Five: Conclusion		
5.1	Summary of Findings	154
5.2	Conclusion	155
5.3	Recommendations	156
5.4	Contribution to Knowledge	157

5.5	Suggestion for Further Studies	158
	Bibliography	159
	Appendix	
	Questionnaire	174
	Transcribed response from Interview Guide	177
	Bio-data	182
	The University Compliance Certification	183

Do Not Copy, Lead City University, Nigeria

List of Tables

Table	Title	Page
3.1	Population Distribution	111
3.4.1	Cronbach's Alpha Reliability Test	113
3.6.1	Reliability Test	114
4.1	Response Rate	118
4.1.2	Demographic Distribution of Respondents	119
4.2	Service Delivery Tangibility, Service Delivery Ideology, Service Delivery Variability and Service Delivery Limits	122
4.2.2	Data Literacy Skills (Gathering, Storing, Processing and Visualizing) of Health Information Management Professionals in Tertiary Hospitals in Bayelsa State	126
4.3.1	Influence of Data Gathering Skill on Service Delivery of Health Information Management Professionals in Tertiary Hospitals in Bayelsa State	131
4.3.2	Influence of Data Storing Skill on Service Delivery of Health Information Management Professionals in Tertiary Hospitals in Bayelsa State	133
4.3.3	Influence of Data Processing Skill on Service Delivery of Health Information Management Professionals in Tertiary Hospitals in Bayelsa State	135
4.3.4	Influence of Data Visualizing Skill on Service Delivery of Health Information Management Professionals in Tertiary Hospitals in Bayelsa State	137
4.3.5	Combined Influence of Data Literacy Skills (Data Gathering, Storing, Processing and Visualizing) on Service Delivery of Health Information Management Professionals in Tertiary Hospitals in Bayelsa State.	139

List of Figures

Figure	Title	Page
2.1.	Theory of Human Service Delivery	56
2.2.	Data Literacy Competency Model	57
2.3.	Data Literacy and Service Delivery Framework	73
2.4.	Conceptual model of Service Delivery and Data Literacy Skills	91

Do Not Copy, Lead City University, Nigeria