

**A MODIFICATION OF THE UNIFIED THEORY OF
ACCEPTANCE AND USE OF TECHNOLOGY (UTAUT) FROM
USERS' PERSPECTIVES OF TELECENTRE IN NIGERIA**

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Abstrak

Telecentre merupakan ruang fizikal yang menyediakan akses maklumat dan teknologi komunikasi kepada golongan dalam masyarakat yang tidak berkemampuan. Kajian terkini menunjukkan bahawa inisiatif seperti ini telah mula dilaksanakan di negara-negara maju. *Telecentre* merupakan kaedah yang kos efektif bagi menghubungkan akses kepada komputer dan Internet. Mengenal pasti faktor yang mempengaruhi penerimaannya merupakan cabaran utama untuk menjayakan pelaksanaannya. Antara faedah penting *telecentre* termasuk literasi digital dan penjaan pekerjaan. Walaupun *telecentre* dapat memberikan faedah tertentu, kajian yang melihat penerimaannya di Nigeria agak terhad. Tambahan pula, model penerimaan teknologi terdahulu boleh dipertikai penggunaannya dalam menjelaskan secara berkesan penerimaan teknologi. Persoalan juga timbul sama ada terdapat faktor lain yang mempengaruhi penerimaannya. Kajian ini bertujuan untuk menentukan faktor yang mempengaruhi penerimaan *telecentre* berdasarkan Teori Bersepadu Penerimaan dan Penggunaan Teknologi (UTAUT). Model penerimaan *telecentre* yang dicadangkan mengandungi sembilan pemboleh ubah terpendam iaitu tujuh pemboleh ubah eksogen dan dua pemboleh ubah endogen. Sebanyak 375 soal selidik telah diagihkkan melalui satu tinjauan kepada responden di enam buah *telecentre* yang terletak di tiga zon di Nigeria. Daripada jumlah ini, 203 soal selidik telah dikembalikan, mewakili kadar respon sebanyak 54%. Pemodelan Persamaan Berstruktur digunakan untuk menyelidik hubungan penyebab dan penyederhana antara pemboleh ubah terpendam. Dapatan kajian menunjukkan empat penentu teras iaitu Jangkaan Prestasi, Pengaruh Sosial, Keberkesanan Pengurusan, dan Keberkesanan Program mempengaruhi secara signifikan niat menerima *telecentre*. Penentu teras lain iaitu Niat Gelagat dan Keadaan Pemudah didapati menentukan secara signifikan Penggunaan Pengguna. Jantina, umur, dan kaum didapati menyederhana hubungan antara pemboleh ubah terpendam. Berdasarkan dapatan yang diperoleh, satu model penerimaan yang dikenali sebagai model UTAUT yang diubah suai berdasarkan *telecentre* dicadangkan. Dapatan kajian mempunyai implikasi terhadap kajian akan datang dan praktis dari segi pembangunan dan pelaksanaan *telecentre*.

Kata kunci: Jurang digital, Telekomunikasi, Niat gelagat, Pemodelan persamaan berstruktur

Abstract

Telecentres are physical space that provides public access to information and communication technology to some members of underserved communities. Recent studies have shown that the initiative is spreading among developing countries. A telecentre offers cost-effective means of bridging access to Computer and Internet. Identifying the factors that influence its acceptance represents a fundamental challenge to its successful implementation. Primarily, among numerous benefits of telecentres include digital literacy and employment generation. However, despite these benefits limited studies have been conducted to examine its acceptance in Nigeria. Moreover, it is doubtful whether prior information technology acceptance models can be effectively used to examine its acceptance. Questions also arise if there are other factors that influence its acceptance. The objective of this study was to determine the factors that influence the acceptance of telecentres based on the Unified Theory of Acceptance and the Use of Technology (UTAUT). The proposed model of telecentre acceptance consists of nine latent variables, namely, seven exogenous variables and two endogenous variables. A total of 375 questionnaires were distributed through a survey to respondents in six telecentres located in the three zones in Nigeria, out of which 203 questionnaires were returned, representing 54% response rate. A Structural Equation Modelling was used to investigate the causal and moderating relationships between the latent variables. The results showed four core determinants of Performance Expectancy, Social Influence, Management Effectiveness and Program Effectiveness significantly influence intention towards telecentre acceptance. Two core determinants, Behavioural Intention and Facilitating Conditions, were found to significantly determine User Acceptance. Gender, age and ethnicity were found to moderate the relationships between the latent variables. Based on the result obtained, a model of acceptance known as a modified UTAUT based telecentre model is proposed. The findings have implications both for future research and practice of telecentre development and implementation.

Keywords: Digital divide, Telecommunication, Behavioral intention, Structural equation modeling

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Table of Contents

Permission to Use.....	i
Abstrak	ii
Abstract	iii
Acknowledgement.....	iv
Table of Contents	v
List of Tables.....	ix
List of Figures	x
List of Appendices	xi
Glossary of Terms	xii
List of Abbreviations.....	xiii
CHAPTER ONE INTRODUCTION.....	1
1.1 Background of the Study Context	1
1.2 Problem Statement.....	7
1.3 Research Question and Research Objectives	12
1.5 The Scope of the Research	13
1.6 Significance of the study	15
1.7 The Thesis Structure.....	18
CHAPTER TWO LITERATURE REVIEW.....	20
2.1 Introduction	20
2.2 Role of Telecentre in Community Access.....	20
2.3 Reviews on TelecentresA.....	23
2.4 Telecentre Implementation in Nigeria.....	32
2.5 Development of Information and Communication Technology in Nigeria	35
2.6 Status of Telecommunication Infrastructure and Access	37
2.7 Internet Services	39
2.8 Nigeria Communication Commissions.....	41
2.8.1 National Information Technology Development Agency	42
2.8.2 Information Technology Policies in Nigerian Education System	42
2.8.3 Digital Bridge Institute	44
2.8.4 Universal Service Provision Fund	45
2.8.5 USPF Board and Sources of Fund.....	46
2.9 Effectiveness of Telecentre	46
2.10 Information Technology Acceptance	48

2.10.1	Models of Technology Acceptance	49
2.10.2	The Theory of Reasoned Action (TRA)	50
2.10.3	The Theory of Planned Behavior (TPB).....	51
2.10.4	Diffusion of Innovation Theory (DOI)	52
2.10.5	Technology Acceptance Model (TAM)	52
2.10.6	Extended Technology Acceptance Model (TAM 2)	55
2.10.7	Limitations of TAM Research	56
2.11	The Unified Theory of Acceptance and Use of Technology (UTAUT)	58
2.12	Competing Value Approach (CVA).....	65
2.13	Review on the Conceptual Model Variables	68
2.13.1	Performance Expectancy	68
2.13.2	Effort Expectancy	68
2.13.3	Social Influence	69
2.13.4	Anxiety	70
2.13.5	Management Effectiveness	70
2.13.6	Program Effectiveness	71
2.13.7	Facilitating Conditions	72
2.13.8	Behavioral Intention	73
2.14	Summary.....	74
CHAPTER THREE METHODOLOGY		76
3.1	Introduction	76
3.2	Research Strategies and Approaches	76
3.3	Research Model	79
3.4	Justifications of Adapting UTAUT Model.....	81
3.5	Operationalization of Constructs	83
3.5.1	Independent Variables	83
3.5.2	Dependent Variables	88
3.6	Research Hypothesis	93
3.6.1	Main Hypotheses	93
3.6.2	Hypotheses for Moderating Variables	94
3.7	Population and Sampling Method	97
3.7.1	Sampling Frame.....	97
3.7.2	Sample Size	100
3.7.3	Systematic Sampling Design	102
3.7.4	Unit of Analysis.....	103
3.7.5	Time Dimension of the Study.....	104

3.8	Types of Questionnaire.....	104
3.8.1	Rating Scales for the Response	105
3.8.2	Validity and Reliability of the Research Instruments.....	105
3.8.3	Content Validity	106
3.8.4	Pilot Study and Construct Validity	107
3.9	Data Analysis Strategy	108
3.9.1	Structural Equation Modeling	109
3.10	Summary.....	111
CHAPTER FOUR RESEARCH FINDINGS		112
4.1	Introduction	112
4.2	Analysis of Survey Response	112
4.2.1	Response Rate.....	112
4.2.2	Descriptive Statistics	115
4.2.3	Test of Non-Response Bias	116
4.3	Data Screening and Preliminary Analysis	118
4.3.1	An Overview.....	118
4.3.2	Missing Data.....	119
4.3.3	Assessment and Treatment of Outliers	120
4.3.4	Assumption of Normality	120
4.3.5	Multicollinearity	121
4.3.6	Assumption of Linear Relationship	122
4.3.7	Assumption of Homoscedasticity	123
4.4	Measurement Refinement.....	124
4.4.1	Exploratory Factor Analysis for Exogenous Variables	125
4.4.2	EFA for Endogenous Variables	127
4.4.3	Confirmatory Factor Analysis (CFA) and the Measurement Model..	129
4.4.4	Exogenous Constructs Measurement Model	130
4.4.5	Endogenous Construct Measurement Model.....	131
4.4.6	Combine Exogenous and Endogenous Constructs Measurement Model	133
4.5	Convergent Validity Result	135
4.5.1	Composite Reliability	137
4.5.2	Discriminant Validity	139
4.6	Main Hypotheses Results	144
4.6.1	Gender Grouping Models	148
4.6.2	Age Grouping Models	150
4.6.3	Ethnicity Grouping Models	151

4.6.4	Location Grouping Models.....	152
4.7	Group Invariance	154
4.7.1	Multi Group Invariance	154
4.7.2	Gender Invariance.....	154
4.7.3	Age Multi Group Invariance.....	156
4.7.4	Ethnicity Multi Group Invariance.....	158
4.7.5	Location Multi Group Invariance	159
4.8	Summary.....	162
CHAPTER FIVE DISCUSSION.....		163
5.1	Introduction	163
5.2	An Overview of the Research.....	163
5.3	Discussion on Hypotheses Testing.....	165
5.3.1	Effect of Performance Expectancy on Behavioral Intention (H_{1A})	165
5.3.2	Effect of Effort Expectancy on Behavioral Intention (H_{2A})	165
5.3.3	Effect of Social Influence on Behavioral Intention (H_{3A})	166
5.3.4	Effect of Anxiety on Behavioral Intention (H_{4A})	167
5.3.5	Effect of Management Effective on Behavioral Intention (H_{5A}).....	168
5.3.6	Effect of Program Effective on Behavioral Intention (H_{6A}).....	169
5.3.7	Effect of Facilitating Condition on User Acceptance (H_{7A}).....	169
5.3.8	Effect of Behavioral Intention on User Acceptance (H_{8A})	170
5.4	Significance of the Moderating Effects	172
5.5	Summary.....	174
CHAPTER SIX CONCLUSION.....		163
6.1	Introduction	175
6.2	Research Questions	175
6.4	Research Contribution	184
6.4.1	Theoretical Contribution	184
6.4.2	Research Practical Contribution	186
6.5	Limitations of the Study	189
6.6	Future Research	189
6.7	Conclusion.....	192
REFERENCES		194

List of Tables

Table 1.1 :	Internet Usage in Africa and on the Globe 2011	5
Table 2.1:	Community Telecentres in Nigeria	33
Table 2.2:	Summary of Telephone Operators in Nigeria	40
Table 2.3:	Methodological details of TAM Validation	57
Table 2.4:	Sub-Determinants and Sources of UTAUT External Variables	60
Table 3.1:	Summary of Factors utilize in the Research Model	90
Table 3.2:	Codes and Description of Dependent Variables	91
Table 3.3:	Codes and Description of Independents Variables	92
Table 3.4:	Research Hypotheses between Independents and Dependents Variables	96
Table 3.5:	Research Hypotheses among Moderating Variables	96
Table 3.6:	Distribution of Community Telecentres in Nigeria	98
Table 3.7:	Number of Registered Users of Community Telecentre in Nigeria	98
Table 3.8:	Number of Telecentres from each Geographic Zone	99
Table 3.9:	Proportion of Telecentre Sample with the Corresponding Percentage	99
Table 3.10:	The Probability Sampling of Users	101
Table 3.11:	Number of Questionnaire Distributed for each Telecentre	102
Table 3.12:	Results of Cronbach Alpha from Pilot Study	108
Table 4.1 :	Characteristics of the Respondents (N=191)	114
Table 4.2:	Descriptive Statistics of the Constructs and Variables used in the Study	116
Table 4.3:	Test of Non Respondent Bias	118
Table 4.4:	Correlations among the Variables	122
Table 4.5:	Correlations between Exogenous Variables	124
Table 4.6:	Factor Loadings and Communalities for Exogenous Variables	127
Table 4.7:	Factor Loadings and Communality for Endogenous Variables	128
Table 4.8:	Goodness of Fit Index for the Exogenous Variables	131
Table 4.9:	Goodness of Fit Index for the Endogenous Variables	132
Table 4.10:	Goodness of Fit Index for the Combined Variables	134
Table 4.11:	Summary of Goodness of Fit Index on Measurement Models (N=191)	135
Table 4.12:	Convergent Validity on Dimensions	136
Table 4.13:	Composite Reliability and Cronbach Alpha of Items Remaining	138
Table 4.14:	Correlation Matrix Roots of the AVEs (shown in diagonal)	140
Table 4.15:	Summary of GOF for Hypotheses, Alternate, and UTAUT Models	143
Table 4.16:	Results of SMC2 between Original and Modified UTAUT Model	143
Table 4.17:	Results of Main Hypotheses	144
Table 4.18:	Results of Multiple Group Modeling (Gender)	155
Table 4.19:	Results of Comparative Path Coefficients Gender (Male and Female)	156
Table 4.20:	Results of Multiple Group Modeling (Age)	157
Table 4.21:	Results of Comparative Path Coefficients Age (Younger and Older)	157
Table 4.22:	Results of Multiple Group Modeling (Ethnicity)	158
Table 4.23:	Results of Comparative Path Coefficients Ethnicity (Major and Minor)	159
Table 4.24:	Results of Multiple Group Modeling (Location)	160
Table 4.25:	Results of Comparative Path Coefficients Loc. (Conv. and No.Conv.)	160
Table 4.26:	Summary of the Hypothesized Results	161
Table 6.1:	Determinants of User Acceptance of Telecentre	176
Table 6.2:	Summary of significant Factors with corresponding Beta Values	177

List of Figures

Figure 1.1:	Thesis Structure	19
Figure 2.1:	Theory of Reasoned Action TRA (Fishbein & Ajzen, 1975)	50
Figure 2.2:	Theory of Planned Behavior TPB (Ajzen, 1991)	51
Figure 2.3:	Technology Acceptance Model TAM (Davis, 1989)	54
Figure 2.4:	Technology Acceptance Model TAM2 (Venkatesh & Davis, 2000)	55
Figure 2.5:	The UTAUT Model (Venkatesh et al., 2003)	61
Figure 2.6:	Competing Value Approach Model CVA (Quinn & Rohrbaugh, 1983)	67
Figure 2.7:	The Conceptual Model of User Acceptance of Telecentre	74
Figure 3.1:	The Research Strategy	78
Figure 3.2:	Research Model	81
Figure 4.1:	CFA Measurement Model for Exogenous Variables	130
Figure 4.2:	CFA Measurement Model for Endogenous Variables	132
Figure 4.3:	Combined CFA Measurement Models	133
Figure 4.4:	The Hypothesized Structural Model with Path Analyses	141
Figure 4.5:	Alternate Model	142
Figure 4.6:	Estimated Structural Model	148
Figure 4.7:	Gender Models with Path Coefficient (Male and Female)	149
Figure 4.8 :	Age Group Models with Path coefficient (Younger and Older)	151
Figure 4.9 :	Ethnicity Models with Path coefficient (Major and Minor)	152
Figure 4.10:	Location Models with Path Coefficient (Conv. and Not Conv.)	153
Figure 5.1:	Revised Model of User Acceptance of Telecentre	171

List of Appendices

Appendix A	Research Instruments	211
Appendix B	Sample Size Table	216
Appendix C	Reasults of Statistical Analysis	226
Appendix D	Construct Reliabilty	245
Appendix E	Factor Analysis	250
Appendix F	Confirmatory Factor Analysis	256
Appendix G	SEM Output.....	263

Glossary of Terms

Universal Service mean that the entire designated population can privately subscribe to and use a particular telecommunication at a reasonable minimum quality of service at an affordable rate on an individual household or institutional basis (USPF, 2009a).

Universal Access signifies that everyone in the community can gain access to a public telecommunication services although not necessarily at homes basis (USPF, 2009a).

Un-served areas Geographic areas in which universal coverage for a particular basic USPF service cannot be obtained on demand (USPF, 2009a).

Underserved areas Geographic areas, in which there is some coverage of at least 5% for a particular basic USPF service but it cannot be obtained universally (USPF, 2009a).

Community literarily means a group of interacting people who shares common values attribute with social cohesion, living in a common place within a shared geographical area.

Sub-Saharan Africa refers to geographical area of African countries partially situated south of the Sahara, in which the general population is blacks. Arabic commentators in the past referred to this region as *bilâd as-sûdân*, literarily means land of the black (Edward, 1982).

List of Abbreviations

AGFI	Adjusted Goodness-of-Fit Index
AMOS	Analysis of Moment Structure
ANX	Anxiety
AVE	Average Variance Extracted
BI	Behavioral Intention
CDMA	Code Division Multiple Access
CFA	Confirmatory Factor Analysis
CFI	Confirmatory Fit Index
CCC	Community Communication Centre
CVA	Competing Value Approach
DBI	Digital Bridge Institute
DOI	Diffusion of Innovation Theory
DSL	Digital Subscriber Line
EE	Effort Expectancy
EFA	Exploratory Factor Analysis
ENDO	Endogenous Variable
EXO	Exogenous Variable
FC	Facilitating Condition
GOF	Goodness-of-Fit
IFI	Incremental Fit Index
MIS	Management Information System
IT	Information Technology
ITU	International Telecommunication Union
KMO	Kaiser-Meyer-Olkin
MEF	Management Effectiveness
NITEL	Nigeria Telecommunication Limited
NPOs	Non-Profit-Organizations
PE	Performance Expectancy
PHCN	Power Holding Company of Nigeria
RMSEA	Root Mean Square Error Approximation
SEM	Structural Equation Modeling
SI	Social Influence
SPSS	Statistical Package for Social Science
TAM	Technology Acceptance Model
TLI	Tucker-Lewis-Index
TRA	Theory of Reasoned Action
UA	User Acceptance
UTAUT	Unified Theory of Acceptance and Use
VOIP	Voice Over Internet Protocols
VSAT	Very Small Aperture Terminal
X ² /DF	Chi-square per degree of freedom

CHAPTER ONE

INTRODUCTION

This chapter presents a brief introduction on Nigeria, the geographical settings and the compositions of its major ethnic groups. The research begins by highlighting the background of the study, the problem statement and the research questions with the research objectives including the scope of the research. The discussions on the rationale of the research and the research structure are presented.

1.1 Background of the Study Context

Nigeria occupies a unique position among African countries located within the West Coast of Africa; it occupies a landmass of about 923,768 square km. The country is bordered by Benin Republic in the West, Gulf of Guinea which forms part of the Atlantic Ocean in the South West, Niger Republic in the North, Chad Republic in the North East and Cameroon Republic in the East. Nigeria is the most populous, multi religious and ethnically diverse country in Africa, endowed with more than 250 ethnic groups (Aborishade & Munt, 1999). The population of Nigeria was estimated at above 150 million people, most of whom are rural dwellers (Salawu, 2010; Muganda, Bankole & Brown, 2008). The three major zones of Nigeia (North, South West and South East) are divided into 36 states; the states are further sub-divided under six geopolitical zones with a total of 774 local government areas (LGAs). The three main ethnic groups in Nigeria and their compositions include: Hausa/Fulani constituting 29% in the North, the Yoruba's mainly in the South West constitutes 21%, while the Igbo's in the South East represent 18%. Other minorities groups constituting about 32% could be found

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