

**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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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 Nigeria (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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