# WEST AFRICA BUILT ENVIRONMENT RESEARCH (WABER) CONFERENCE

July 27-28, 2010

# Accra, Ghana

# Proceedings of the WABER 2010 conference

Editors Dr Samuel Laryea Dr Roine Leiringer Professor Will Hughes Proceedings of the West Africa Built Environment Research (WABER) Conference Accra, Ghana, 27-28 July 2010

#### Editors

Dr Samuel Laryea Dr Roine Leiringer Professor Will Hughes

First published 2010

ISBN 978-0-9566060-0-6

Published by West Africa Built Environment Research (WABER) Conference C/o School of Construction Management and Engineering University of Reading PO Box 219 Reading, UK RG6 6AW

© The copyright for papers in this publication belongs to the authors of the papers.

#### Correspondence

All correspondence relating to the WABER Conference should be addressed to:

Dr Samuel Laryea School of Construction Management and Engineering University of Reading, PO Box 219, Reading, UK RG6 6AW Email: s.laryea@reading.ac.uk

#### Declaration

All papers in this publication have been through a review process involving initial screening of abstracts, review by at least two referees, reporting of comments to authors, modifications of papers by authors and re-evaluation of re-submitted papers to ensure quality of content.

# FOREWORD

Welcome to this West Africa Built Environment Research (WABER) conference taking place here in Ghana. Thank you for coming and welcome to Accra. The main aims of the WABER conference are: to help young researchers and early-career scholars in West Africa to develop their research work and skills through constructive face-to-face interaction with experienced academics; to provide a platform for networking and collaborative work among senior built environment academics in West Africa; and to serve as a vehicle for developing the field of construction management and economics in Africa.

# Waber 2009

The WABER event in 2009 was held at the British Council in Accra, Ghana on 2-3 June. The event was a resounding success. It attracted participation from 32 researchers, from 12 different institutions, who presented their work to an audience of approximately 100 people. Each presenter received immediate and constructive feedback from an international panel. The event was opened by Professor K.K. Adarkwa, Vice Chancellor of KNUST, Kumasi, Ghana, with several senior academics and researchers from universities, polytechnics, and other institutions in Ghana and Nigeria in attendance. There was also a significant level of attendance by senior construction practitioners in Ghana. Thank you to the School of Construction Management and Engineering, University of Reading, UK for funding the inaugural event in 2009. We are also grateful to all of you who helped to make the event a success and to those of you who have joined us here today to build upon the success and legacy of WABER 2009.

# **Waber 2010**

This year, we have 60+ peer-reviewed papers and presentations on topics relating to Building services and maintenance, Construction costs, Construction design and technology, Construction education, Construction finance, Construction procurement, Contract administration, Contract management, Contractor development, Decision support systems, Dispute resolution, Economic development, Energy efficiency, Environment and sustainability, Health and safety, Human resources, Information technology, Marketing, Materials science, Organisation strategy and business performance, Productivity, Project management, Quantity surveying, Real estate and planning, Solar energy systems, Supply chain management and Urban development. We hope that these papers will generate interest among delagates and stimulate discussion here and beyond the conference into the wider community of academia and industry.

The delegates at this conference come from 10 different countries. This provides a rich international and multicultural blend and a perfect platform for networking and developing collaborations. This year we are blessed to have three high profile keynote speakers in the persons of Professor George Ofori (National University of Singapore), Dr Roine Leiringer (University of Reading, UK) and Professor Will Hughes (University of Reading, UK). We are also thankful to Dr Chris Harty (University of Reading, UK) who is facilitating the Research Skills Workshop on '*Writing a scientific article*'. Thank you to Dr Sena Agyepong of our conference organising team for her capable management of local organising arrangements. And above all, thank you to all of you for coming to this conference. Enjoy and have a safe journey back home.

Dr Samuel Laryea School of Construction Management and Engineering University of Reading, July 2010

# SCIENTIFIC COMMITTEE

Professor Will Hughes, University of Reading, UK Dr Roine Leiringer, University of Reading, UK Professor Kabir Bala, Ahmadu Bello University, Nigeria Professor George W.K. Intsiful, KNUST, Kumasi, Ghana Dr Martin M. Tuuli, Loughborough University, UK Dr Moshood Olawale Fadeyi, British University in Dubai, UAE Dr Kemi Adeyeye, University of Brighton, UK Professor Denis F. Cioffi, George Washington University, USA Professor Anny Nathaniel Aniekwu, University of Benin, Nigeria Dr Mrs Bola Babalola, Obafemi Awolowo University, Nigeria Professor George Ofori, National University of Singapore, Singapore Dr Shamas-ur-Rehman Toor, Islamic Development Bank Group, Jeddah, Saudi Arabia Cathy Hughes, University of Reading, UK Professor Raymond Nkado, University of the Witwatersrand, South Africa Dr Aaron Anvuur, University College London, UK Dr Chris Harty, University of Reading, UK Professor Jianguo Chen, Tongji University, China Dr Eammanuel Adu Essah, University of Reading, UK Dr Sena Agyepong, KNUST, Kumasi, Ghana Dr Samuel Laryea, University of Reading, UK

# LIST OF REVIEWERS

In addition to members of the scientific committee, the following people helped to review abstracts and papers and we would like to acknowledge their contribution and thank them.

Dr Libby Schweber, University of Reading, UK Dr Bernard Baiden, KNUST, Kumasi, Ghana Dr Scott Fernie, Heriot-Watt University, UK Dr Ajibade Aibinu, University of Melbourne, Australia Dr Hasan Haroglu, University of Reading, UK Richard Nyuur, University of Swansea, Wales Dr Carmel M. Lindkvist, University of Reading, UK Dauda Dan-Asabe, University of Reading, UK Patrick Manu, University of Wolverhampton, UK Collins Ameyaw, Kumasi Polytechnic, Ghana Afolabi A. Dania, Ahmadu Bello University, Nigeria Dr Peter Kuroshi, Covenant University, Nigeria Dr Wisdom Kwawu, University College of London, UK Sam During, University of Cardiff, Wales Richard Ohene Asiedu, Koforidua Polytechnic, Ghana Andrew Oppong Danquah, Ghana Health Service, Ghana Dr Divine Ahadzie, KNUST, Kumasi, Ghana Dr Obuks Ejohwomu Rita Li, University of Hong Kong Dr Raymond T Abdulai, Liverpool John Moores University Dr. Zhikun Ding, Shen Zhen University John Kissi, Mousel and Loughborough University Wu Jin, University of Hong Kong Dr Per Erik Eriksson, Luleå University of Technology, Sweden

Dr Johan Nyström, Pöyry Management Consulting, Sweden Dr Richard Davies, University of Reading, UK Dr Chung-Chin (Jim) Kao, University of Reading, UK Gabriel Nani, KNUST, Kumasi, Ghana Dr Peter Kuroshi, Covenant University, Nigeria Sarfo Mensah, Kumasi Polytechnic, Ghana Natalya Sergeeva, University of Reading, UK Dr Peter Yalley, Takoradi Polytechic, Ghana Amna Shibeika, University of Reading, UK Eric P. Tudzi, KNUST, Kumasi, Ghana Joseph Buertey, Pentecost University College, Ghana Dr Emmanuel Adinyira, KNUST, Kumasi, Ghana Naa Adjeley Ashiboe-Mensah, KNUST, Kumasi, Ghana Dr Adetokunbo Illesanmi, Covenant University, Nigeria Ivy Abu, KNUST, Kumasi, Ghana Dr Ellis Osabutey, University of Swansea, Wales Dr Emmanuel Achuenu, University of Jos, Nigeria Rita Zhang, Peilhua, University of Hong Kong Ambrose Dodoo, Mid Sweden University Dr Daniel Okpala, Wisconsin Department of Transportation, USA Dr Yunyan Jia, University of Hong Kong Alan Zhai, Loughborough University John Shen Yuzhong, University of Hong Kong Rev Dr Frank Fugar, KNUST, Kumasi, Ghana

# **THEME LEADERS**

We are grateful to the following academics for leading the refereeing process for papers relating to the research areas designated under their name(s):

Cathy Hughes, University of Reading, UK Real Estate and Planning

Professor Denis F. Cioffi, George Washington University, USA Project Management / Analytical Techniques and Modeling

Dr Martin Tuuli, Loughborough University, UK Quantity Surveying, Cost and Financial Management

Dr Kemi Adeyeye, University of Brighton, UK Dr Moshood Olawale Fadeyi, British University in Dubai, UAE Construction Design and Technology

Dr Roine Leiringer, University of Reading, UK Dr Samuel Laryea, University of Reading, UK Procurement and Contracting

Dr Aaron Anvuur, University College of London, UK Dr Shamas-ur-Rehman Toor, University of New South Wales, Australia Organisation Strategy and Business Performance

Dr Emmanuel Adu Essah, University of Reading, UK Solar Energy Systems and Technologies, Ventilation and Moisture Transfer in Buildings

Professor Anny Nathaniel Aniekwu, University of Benin, Nigeria Economics and Industry

# PROGRAMME

# **TUESDAY 27 JULY 2010**

#### 08:30-09:00 REGISTRATION

#### **OPENING SESSION (Main auditorium)**

- 09:00-09:10 Welcome address by Mr. Moses Anibaba (Director of British Council in Ghana): The role of the British Council in Africa
- 09:10-09:15 Introductory remarks by *Professor Will Hughes* (Head of School of Construction Management and Engineering, University of Reading, UK)
- 09:15-09:25 Address by Dr Edward Omane Boamah (Deputy Minister of State, Environment, Science and Technology): *The role of Built Environment academics in Environment, Science and Technology advancement*
- 09:25-09:35 Chairman's remarks by Professor Kwasi Adarkwa (Vice Chancellor of Kwame Nkrumah University of Science and Technology, Kumasi, Ghana)
- 09:35:09:45 Official WABER 2010 Group Photograph

#### **KEYNOTE ADDRESS (Main auditorium)**

 

 10:00-10:30
 Built environment education, research and practice: Integrating diverse interests to make an impact Professor Will Hughes (Editor-in-chief, Construction Management and Economics / School of Construction Management and Engineering, University of Reading, UK)

 10:30-11:00
 Refreshments and networking break

#### **PRESENTATION SESSIONS (11:00-13:10)**

#### **STREAM 1 (Main auditorium)**

#### Chairperson Professor Raymond Nkado (University of the Witwatersrand, Johannesburg, South Africa)

- 11:00-11:10
   Construction cash flow prediction model in Ghana: A case study of the district assembly common funded project Joseph Buertey *et al.* 

   11:10-11:20
   Risk and uncertainties in construction clients' cash flow forecast M.O. Babalola and G.K. Ojo

   11:20-11:30
   Discussion

   11:30-11:40
   Evaluating the characteristics of whole life-cycle cost data in the Nigerian construction industry A M Ibrahim, K Bala, Y M Ibrahim, A D Ibrahim

   11:40-11:50
   Construction cost data management by quantity surveying firms in Nigeria Johnson Olubunmi Atinuke
- 11:50-12:00 Discussion

#### Chairperson Dr Mrs. Bola Babalola (Obafemi Awolowo University, Nigeria)

- 12:10-12:20 An artificial neural network model for predicting construction cost of institutional building projects in Nigeria Baba Shehu Waziri
- 12:20-12:30 Multi-criteria decision-making model for contractor's selection in construction projects in Nigeria Oluwaseyi Modupe Ajayi 12:30-12:40 Discussion
- 12:40-12:50 Introduction of build-operate-transfer (BOT) model into main stream funding of infrastructural projects in Ghana Kwaku Owusu
- 12:50-13:00 Appraisal of factors that influence the implementation of BOT infrastructure projects in Nigeria Alhassan Dahiru and S. A. Bustani
- 13:00-13:10 Discussion
- 13:10-14:30 Lunch and networking break

### **PRESENTATION SESSIONS (11:00-13:10)**

### **STREAM 2 (Seminar room)**

### Chairperson Dr Paul Alagidede (University of Stirling, Scotland, UK)

11:00-11:10The macroeconomic review of building and construction sector in Nigeria: pre 1980-2006 – Folasade Omoyemi Alabi11:10-11:20An assessment of the effectiveness and equitability of access to federal mortgage bank of Nigeria's finances for housing (1992 - 2008) – Musa Nuhu Madawaki11:20-11:30Discussion11:30-11:40A hedonic regression analysis of urban infrastructure in commercial property values in Lagos – Funlola Famuyiwa11:40-11:50Analysing quantitative data using factor analysis: reflections from an empirical study – D. K. Ahadzie, D.G. Proverbs and N.A. Ankrah11:50-12:00Discussion

#### Chairperson Dr Moshood Olawale Fadeyi (British University in Dubai, UAE)

- 12:10-12:20The applicability of the Harvard and Warwick models in the development of human resource management policies of large construction companies in Ghana Sena<br/>Agyepong, Frank Fugar and Martin Tuuli12:20-12:30Characteristics of migrant labour in Wasimi, Irewole Local Government Area, Osun State, South-western Nigeria M. B. Gasu and S.O. Fadare
- 12:30-12:40 Discussion
- 12:40-12:50 Land and housing values and their effect on housing delivery in Sekondi-Takoradi metropolis, Ghana P. P. Yalley, J. F. Cobbinah and P. K. Kwaw
- 12:50-13:00The influence of facilities on rental values and vacancy rates in high rise office rented properties in Kaduna, Nigeria David Ayock Ishaya and Daniel Ishaya Dabo13:00-13:10Discussion
- 13:10-14:30 Lunch and networking break

#### **KEYNOTE ADDRESS (Main auditorium)**

14:30-15:00Built environment research and the Millennium Development Goals<br/>Professor George Ofori (School of Design and Environment, National University of Singapore, Singapore)<br/>Refreshments and networking break

### PRESENTATION SESSIONS (15:30-17:40)

### **STREAM 1 (Main auditorium)**

### Chairperson Professor G.W.K. Intsiful (KNUST, Kumasi, Ghana)

1	
15:30-15:40	Sustainable construction education: assessing the adequacy of built-environment professional's training – S Ameh, A Dania, I Zubairu and S Bustani
15:40-15:50	The role of construction education in sustainable waste material management in the construction industry – Nongiba A. Kheni
15:50-16:00	Discussion
16:00-16:10	Evoking the green-shift in the building industry for sustainable development in Nigeria – Dodo Yakubu Aminu et al.
16:10-16:20	The role of organizational learning in achieving sustainable construction project delivery – Alex Opoku and Chris Fortune
16:20-16:30	Discussion

#### Chairperson Dr Esi Ansah (Ashesi University, Ghana)

1	
16:40-16:50	Safety on Ghanaian construction sites: The role of the employer and the employee – B. B. Akomah, A. Nimo-Boakye, F. D. K. Fugar
16:50-17:00	How and to what extent do construction project features contribute to accident causation? - P Manu, N Ankrah, D Proverbs, S Suresh and D Ahadzie
17:00-17:10	Discussion
17:10-17:20	Sustainability of solar home systems for a domestic power supply in Nigeria – Dalhatu Abdulsalam, I. Imbamali and I.K. Zubairu
17:20-17:30	Building integration photovoltaic module with reference to Ghana: using triple-junction amorphous silicon – Emmanuel Adu Essah
17:30-17:40	Discussion

### **STREAM 2 (Seminar room)**

### Chairperson Dr Martin M. Tuuli (Loughborough University, UK)

15:30-15:40	Problem of ready-mix concrete production in the construction industry in Nigeria and its cost implication – Dauda Dahiru
15:40-15:50	The continuous use of asbestos in Ghana despite its hazards (case study area: Sekondi-Takoradi) – P. P. Yalley and C. N. Ndede
15:50-16:00	Discussion
16:00-16:10	Impervious building (coating) materials' workability in South-West Nigeria: a case of Akure, Ondo State – Clement Oluwole Folorunso
16:10-16:20	Investigations into the pozzolanic activities of volcanic deposits from the Jos plateau; interim report on chemical characteristics - D. W. Dadu et al.
16:20-16:30	Discussion

### Chairperson Rev. Dr Frank Fugar (KNUST, Kumasi, Ghana)

16:40-16:50	Effects of flooding on the built environment in Akure, Nigeria – Gabriel Fadairo and Sikiru Abiodun Ganiyu
16:50-17:00	Disaster preparedness of high rise buildings in Lagos metropolitan area: evaluating the risk, vulnerability and response strategies - I H Mshelgaru and O. Olowoyeye
17:00-17:10	Discussion
17:10-17:20	An assessment of the causes of foundation failure in residential buildings – Aliyu Suleiman Shika and Nkeleme Emmanuel Ifeanyi
17:20-17:30	Appraisal of the public private partnership in residential housing delivery for low income group in the north central geo-political zone, Nigeria – Suleiman Bolaji
17:30-17:40	Discussion
17:40	Close

# WEDNESDAY 28 JULY 2010

#### **RESEARCH SKILLS WORKSHOP**

09:00-10:30Writing a scientific article – Dr Chris Harty (School of Construction Management and Engineering, University of Reading, UK)10:30-11:00Refreshments and networking break

#### **PRESENTATION SESSIONS (11:00-13:10)**

#### **STREAM 1 (Main auditorium)**

#### Chairperson Dr Emmanuel Achuenu (University of Jos, Nigeria)

- 11:00-11:10 Construction project delivery in Ghana: The performance of the traditional procurement method Collins Ameyaw and S Oteng-Seifah
- 11:10-11:20 Towards improving procurement of built infrastructure in Nigeria Kulomri Jipato Adogbo, Ahmed Doko Ibrahim and Yahaya Makarfi Ibrahim
- 11:20-11:30 Discussion
- 11:30-11:40 The lean project delivery system (LPDS) Zoya E. Kpamma and Theophilus Adjei-Kumi
- 11:40-11:50 Value management: How adoptable is it in the Nigerian construction industry? Baba A. Kolo and Ahmed D. Ibrahim
- 11:50-12:00 Discussion

#### Chairperson Professor Kabir Bala (Ahmadu Bello University, Nigeria)

- 12:10-12:20 How do clients influence innovations in construction professional services firms? John Kissi, Robert Payne, Sam Luke, Andrew Dainty and Anita Liu
- 12:20-12:30 An exploratory study of the contextual meaning and consequences of empowerment in project teams Martin M. Tuuli
- 12:30-12:40 Discussion
- 12:40-12:50 The effects of management on productivity: A comparative study of indigenous and foreign firms in the Nigerian construction industry A. N. Aniekwu and H.O. Audu
- 12:50-13:00 Challenges and opportunities facing contractors in Ghana Samuel Laryea
- 13:00-13:10 Discussion
- 13:10-14:30 Lunch and networking break

#### **STREAM 2 (Seminar room)**

#### Chairperson Professor Anny Nathaniel Aniekwu (University of Benin, Nigeria)

11:00-11:10Adaptable and flexible design solutions for improved functional quality of public apartment buildings in Ghana – Agyefi-Mensah, S., et al.11:10-11:20Environmentally responsible interior design (ERID) solutions for air-conditioned office space in Dubai – M O Fadeyi and R Taha11:20-11:30Discussion11:30-11:40A factoral study of accessibility requirements of paraplegics mobility in a built up environment – Ashiedu, Festus and Igboanugo, Anthony Clement11:40-11:50An investigation into the use of unapproved drawings in the construction industry in Ghana – Nanyi Kobina Orgen11:50-12:00Discussion

#### Chairperson Dr Emmanuel A. Essah (University of Reading, UK)

- 12:10-12:20 An evaluation of physical transformation of residential buildings in government estates in south western, Nigeria Victor Olufemi Adegbehingbe
- 12:20-12:30 Emphasizing the need for estate surveyors and valuers' capacity building in housing development in mega city Kemiki Olurotimi
- 12:30-12:40 Discussion
- 12:40-12:50 People's attitude toward property tax payment in Minna Ayoola Adeyosoye Babatunde
- 12:50-13:00 Analysis of households' travel behaviour in Lagos metropolis Wale Alade
- 13:00-13:10 Discussion
- 13:10-14:30 Lunch and networking break

#### **KEYNOTE ADDRESS**

14:30-15:00Handmaidens and ivory towers: The role and responsibility of construction management researchers as agents of change<br/>Dr Roine Leiringer (School of Construction Management and Engineering, University of Reading, UK)15:00-15:30Refreshments and networking break

### **PRESENTATION SESSIONS (15:30-17:45)**

#### **STREAM 1 (Main auditorium)**

#### Chairperson Dr Sena Agyepong (KNUST, Kumasi, Ghana)

15:30-15:40	Cost escalation of major infrastructure projects: A case study of Soccer City Stadium in Johannesburg – Raymond Nkado
15:40-15:50	The evolution of indigenous contractors in Ghana – Samuel Laryea and Sarfo Mensah
15:50-16:00	Discussion
16:00-16:10	An assessment of the effect of community participation on sub-urban development in Akure - Akin, Oluwatoyin .T. and Oyetunji, Abiodun K
16:10-16:20	Assessment of governmental intervention towards tourism development of Idanre hills, Ondo state, Nigeria – A. J. Afolami and A. A. Taiwo
16:20-16:30	Discussion

#### Chairperson Dr Nongiba A. Kheni (Tamale Polytechnic, Ghana)

- 16:40-16:50 Management of water distribution infrastructure with GIS in the Niger delta region of Nigeria H. A. P Audu and G. C. Ovuworie
- 16:50-17:00 Resident's perception of the central sewage system in the federal capital city, Abuja-Nigeria Andrew Stanley et al.
- 17:00-17:10 The effect of restructuring the Central Business District (CBD) on urban housing and poverty in Lagos, Nigeria Paul Obi
- 17:10-17:25 Discussion
- 17:25-17:45 Presentation of certificates and close

#### **STREAM 2 (Seminar room)**

#### Chairperson Dr Peter Yalley (Takoradi Polytechnic, Ghana)

- 15:30-15:40 Structural stability in Nigeria and worsening environmental disorder: the way forward Anthony N. Ede
- 15:40-15:50 The spatial dynamics of cement manufacturing and marketing in Nigeria Kemiki Olurotimi
- 15:50-16:00 Discussion
- 16:00-16:10 An assessment of core skills and competencies of quantity surveyors in Nigeria Joshua O. Dada
- 16:10-16:20 The disproportional representation of black and minority ethnic peoples' (BMEs) employability in construction: a review of literature Paul Missa and Vian Ahmed
- 16:20-16:30 Discussion

#### Chairperson Dr K.T. Odusami (University of Lagos, Nigeria)

- 16:40-16:50 Pre-construction information implementation in Ghana using UK's CDM 2007 model John Dadzie and David Coles
- 16:50-17:00 Factors affecting the choice of dispute resolution techniques in the Nigerian construction industry Mustapha AbdulRazaq *et al.*
- 17:00-17:10 An assessment of liquidated and ascertained damages in contract delivery Wasiu Bello
- 17:10-17:25 Discussion
- 17:25-17:45 Presentation of certificates and close (Main auditorium)

# **CONTENTS**

# **SECTION 1: KEYNOTES**

Built environment education, research and practice: Integrating diverse interests to make an impact - Will Hughes	1
-	
Built environment research and the millenium development goals - George Ofori	9
Handmaidens and ivory towers: the role and responsibility of construction management researchers as agents of	
change - Roine Leiringer	27
Writing a scientific article - Chris Harty	31

# **SECTION 2: CONFERENCE PAPERS**

A factorial study of accessibility requirements of paraplegics mobility in a built up enviroment - Festus Ashiedu and Anthony Clement Igboanugo	
A hedonic regression analysis of urban infrastructure in commercial property values in Lagos - Funlola Famuyiwa	49
Adaptable and flexible design solutions to the spatial quality of public apartment buildings in Ghana - S. Agyefi-Mensah, J. Post, de Wilde Egmond, E. Van, P. Erkelens and E. Badu	51
An artificial neural network model for predicting construction costs of institutional building projects in Nigeria - Baba Waziri	
An assessment of core skill and competencies of quantity surveyors in Nigeria - Joshua Dada and G.O. Jagboro.	73
An assessment of liquidated and ascertained damages in contract delivery - Wasiu Bello	81
An assessment of the causes of foundation failure in the residential buildings of Jama'a Street in Area B.Z Ahmadu Bello University Zaria-Nigeria - Aliyu Shika and Nkeleme Ifeanyi	91
An assessment of the effect of community participation on sub-urban development in Akure, Nigeria - Oluwatoyin Akin and Abiodun Oyetunji	99
An assessment of the effectiveness and equitability of access to federal mortgage bank of Nigeria's finances for housing (1992 - 2008) - Musa Madawaki	
An evaluation of physical transformation of residential buildings in government estates in south western, Nigeria - Victor Adegbehingbe	127
An exploratory study of the contextual meaning and consequences of empowerment in project teams - Martin M. Tuuli and Steve Rowlinson	141
An investigation into the use of unapproved drawings in the construction industry in Ghana - Nanyi Orgen	153
Analysis of households' travel behaviour in Lagos metropolis - Wale Alade	167
Analyzing quantitative data using factor analysis - Divine Ahadzie, David Proverbs and Nii Ankrah	177
Appraisal of factors that influence the implementation of BOT infrastructure projects in Nigeria - Alhassan Dahiru and S. Bustani	189
Assessment of governmental intervention towards tourism development of Idanre hills, Ondo state, Nigeria - A. Afolami and A. Taiwo	
Appraisal of the public private partnership in residential housing delivery for low income group in the North- central geo-political zone, Nigeria - Suleiman Bolaji	201
Building integration photovoltaic module with reference to Ghana - Emmanuel Adu Essah	203
Challenges and opportunities facing contractors in Ghana - Samuel Laryea	
Characteristics of migrant labour in Wasimi, Irewole Local Government Area, Osun State, South-western Nigeria - M. B. Gasu and S.O. Fadare	
Construction cash flow prediction model in Ghana - Joseph Buertey, Theophilus Adjei-Kumi and Peter Amoah	235
Construction cost data management by quantity surveying firms in Nigeria - Johnson Atinuke	
Construction project delivery in Ghana - Collins Ameyaw and Samuel Oteng-Seifah	255

Cost escalation of major infrastructure projects: A case study of Soccer City Stadium in Johannesburg - Raymond Nkado	265
Disaster preparedness of high rise buildings in Lagos metropolitan area - I. Mshelgaru and O. Olowoyeye	271
Effects of flooding on the built environment in Akure, Nigeria - Gabriel Fadairo and Sikiru Ganiyu	
Emphasizing the need for estate surveyors and valuers' capacity building in housing development in mega city - Kemiki Olurotimi	
Ensuring the health and safety of Ghanaian construction workers by decentralised government agencies - A. Nimo Boakye, B. B. Akomah and F.D.K. Fugar	295
Environmentally responsible interior design (ERID) solutions for air-conditioned office space in Dubai - Moshood Fadeyi and Rasha Taha	305
Ethics of sustainable development in Sub-Saharan Africa - Sam During	319
Evaluating the characteristics of whole life-cycle cost data in the Nigerian construction industry - Aliyu Ibrahim Kabir Bala, Yahaya Ibrahim and Ahmad Doko Ibrahim	
Evoking the green-shift in the building industry for sustainable development in Nigeria - Dodo Aminu, Mohd Kandar and Dilshan Remaz Ossen	333
Factors affecting the choice of dispute resolution techniques in the Nigerian construction industry - Mustapha AbdulRazaq, Yahaya Ibrahim and Ahmed Ibrahim	345
How and to what extent do construction project features contribute to accident causation? - Patrick Manu, Nii Ankrah, David Proverbs, Subashini Suresh and Divine Ahadzie	355
How do clients influence innovations in construction professional services firms? - John Kissi, Robert Payne, Sam Luke, Andrew Dainty and Anita Liu	365
Impervious building (coating) materials' workability in southwest Nigeria - Clement Folorunso	377
Introduction of Build- Operate -Transfer (BOT) model into main stream funding of infrastructural projects in Ghana - Kwaku Owusu	385
Investigations into the pozzolanic activities of volcanic deposits from the Jos plateau - D. Dadu, M. Garba, I. Zubairu and S. Bustani	395
Land and housing values and their effect on housing delivery in Sekondi-Takoradi metropolis, Ghana - P Yalley, J Cobbinah and P Kwaw	403
Management of water distribution infrastructure with GIS in the Niger delta region of Nigeria - Henry Audu and Godwin Ovuworie	l 413
Multi-criteria decision making model for contractor selection in construction projects in Nigeria - Oluwaseyi Ajayi	423
People's attitude toward property tax payment in Minna - Ayoola Babatunde	435
Pre-construction information implementation in Ghana using UK's CDM 2007 model - John Dadzie and David Coles	443
Problem of ready-mix concrete production in the construction industry in Nigeria and its cost implication - Dauda Dahiru	445
Resident's perception of the central sewage system in the federal capital city, Abuja-Nigeria - Andrew Stanley, Afolabi Dania, Oludare Tanimowo and Oyinkansola Audu	459
Risk and uncertainties in construction clients' cash flow forecast - M. O. Babalola and G. K. Ojo	.469
Safety on Ghanaian construction sites - B. Akomah, A. Nimo Boakye and F. Fugar	477
Structural stability in Nigeria and worsening environmental disorder - Anthony Ede	
Sustainability of solar home systems for a domestic power supply in Nigeria - Dalhatu Abdulsalam	499
Sustainable construction education - Solomon Ameh, Afolabi Dania, Ibrahim Zubairu and Shehu Bustani	. 509
The applicability of the Harvard and Warwick models in the development of human resource management policies of large construction companies in Ghana - Sena Agyepong, Frank Fugar and Martin Tuuli	525
The continuous use of asbestos in Ghana despite its hazards - P Yalley and C Ndede	535
The disproportional representation of black and minority ethnic peoples' (BMEs) employability in construction Paul Missa and Vian Ahmed	
The effect of restructuring the Central Business District (CBD) on urban housing and poverty in Lagos, Nigeria	565
The disproportional representation of black and minority ethnic peoples' (BMEs) employability in construction Paul Missa and Vian Ahmed	- 547 565

The evolution of indigenous contractors in Ghana - Samuel Laryea and Sarfo Mensah	579
The influence of facilities on rental values and vacancy rates in high rise office rented properties in Kaduna State, Nigeria - David Ayock Ishaya and Daniel Dabo	589
The lean project delivery system (LPDS): application at the design and documentation stage of building construction projects in Ghana – Zoya Evans Kpamma and Theophilus Adjei-Kumi	597
The macroeconomic review of building and construction sector in Nigeria - Folasade Alabi	605
The role of construction education in sustainable waste material management in the construction industry - Nongiba Kheni	615
The role of organizational learning in achieving sustainable construction project delivery - Alex Opoku and Chris Fortune	627
The spatial dynamics of cement manufacturing and marketing in Nigeria - Kemiki Olurotimi	637
Towards improving procurement of built infrastructure in Nigeria - Kulomri Adogbo, Ahmed Ibrahim and Yahaya Ibrahim.	639
Understanding the challenges of wood fuel usage in Sub-Saharan Africa on the environment - David Idiata, Mitchell Eboigbe and Henry Oriakhi	651
Value management: How adoptable is it in the Nigerian construction industry? - Baba Kolo and Ahmed Ibrahin	m.653
INDEX OF AUTHORS	. 665
INDEX OF KEYWORDS	. 667

# PEOPLE'S ATTITUDE TOWARD PROPERTY TAX PAYMENT IN MINNA

### Ayoola Adeyosoye Babatunde<sup>1</sup>

Department of Estate Management, Federal University of Technology, Minna

This work examines people's attitude toward tax payment in Minna. Data were collected via sets of questionnaire and interview conducted in Minna, the capital of Niger state. Findings revealed that, 90.5% of the respondents pay tax generally, out of which 71.5% is personal income tax while property related taxes stood at 9.4%. Sampling people's willingness to pay tax, 41.6% are willing to pay while 52.6% are not willing to pay. Property rate is the major property tax in operation in Minna. Severance tax, site value rating, special land taxes and betterment tax are not in operation in Minna. The respondents advanced reasons for their lack of interest in paying tax to include lack of awareness, ignorance, and corrupt government officials among others. The paper recommends measures for creating positive people's attitude toward property tax payment and strengthening the existing property generated revenue with the view to accelerating development projects most especially at the local government level.

Keywords: development, property, property tax, tax, revenue.

## **INTRODUCTION**

Nigeria is the most populated country in Africa with more than one-seventh of the continent's estimated population and the effect of its population growth on public utilities is better imagined than describe as most of the social services and amenities have been overstretched (Aliyu, 2008). Federal, State or Local government will therefore need fund to meet the ever-increasing demand for services expected of her teeming populace. Even till now, both the State and Local governments have been relying on Federal government allocations which are dwindling and never enough to meet these needs. So, every tier of government should have alternative sources of generating revenue other than the monies available through Federal consolidated account.

Properties have been recognised as one of the most important sources of generating revenue. For instance, the governments in Kenya, Tanzania and Australia levy (site value rating) taxes on vacant land to stimulate developments (Oyegbile, 1996). Some Countries impress property taxation as one of the viable channels of managing their land policies toward equitable distribution of land while others a means of generating revenue. Also, the governments in Taiwan and Chile levy taxes on vacant lands to stimulate developments in certain zones. In Jakarta, Indonesia, the government collects higher tax rates on land not in use and the Republic of Korea taxes speculative gains in land transaction (Aliyu, 2008). Charles and Marcus (2005), have mentioned

<sup>&</sup>lt;sup>1</sup> ayosoye@yahoo.com

Babatunde, A.A. (2010) People's attitude toward property tax payment in Minna *In:* Laryea, S., Leiringer, R. and Hughes, W. (Eds) *Procs West Africa Built Environment Research (WABER) Conference*, 27-28 July 2010, Accra, Ghana, 435-41.

that property taxes account for about 75% of the state and local government tax revenues in the United State.

Most Cities in Nigeria are faced with challenges of inadequate infrastructure facilities. The available ones are overstressed. Minna, the Capital of Niger State is not an exemption. The State government realised this fact and a programme tagged "Tax Issue" comes up on the television every Sunday of a week. This has been a right step in the right direction. However, it is worrisome that much is yet to be tapped from property based taxes considering the advantages of this form of tax over others. It is against this backdrop that this study will examine the relevance of people's attitude toward property tax payment in Minna

# STATEMENT OF PROBLEM

Overdependence by government on budgetary allocations as the source of revenue, by overwhelming degree, had been a recurring practice in Niger State up till this moment. At the same time, the problems militating against the successful implementation of property tax in the state are fundermental in nature and they concern procedural as well as attitudinal issues. The result is that both the state government and local government have not been able to achieve much success in mobilizing internal funds to provide facilities on regular and predictable basis.

There is still much increases in demand on public services and utilities. Efforts to meet these demands have not been matched by budgetary allocations, a situation that makes the need to raise the level of extra-budgetary funding imperative. Other alternatives have to be explored.

Property (land) is a viable alternative to complement government's revenue base. Real property is responsive to economic growth and predictable in terms of yield.Inspite of its proven potentials, property taxation in Minna remains in its infancy. This is the issue this research tends to address.

# THEORETICAL FRAMEWORK

## Taxation

Nightingale (2001), defined Taxation as the system by which a public authority imposes certain levies, rates or duties on its subjects for the purpose of raising revenue. "A Tax is compulsory contribution imposed by government, and while tax payers may receive nothing identifiable in return for their contribution, they nevertheless have the benefit of living in a relatively educated, healthy and safe society."

Also, Okoni (2006), quoted Nightingale (2001) as she further explains that taxation is "part of the price to be paid for an organized society.

Nightingale (2001), further identified six(6) reasons for taxation which include Provision of public goods, redistribution of income and wealth, promotion of social and economic welfare as well as economic stability

In support of the public good arrangement as one of the basis for taxation, Murphy and Nagel (2002), argued that , "...The ends that may be claimed as legitimate for the state and that affect tax policy can be ranged under three headings: public goods, benefits to individual and distributive justice. Public goods are defined as those that cannot be provided to anybody unless they are provided to everybody. The obvious way of getting everyone to pay their share is through taxation, coercively imposed.

### **Property tax**

According to Franzsen (2002) as quoted by Ayoola & Adeogun (2008), Property tax, is an annual tax on the ownership (or occupation) of immovable property that is land and/or buildings), as in many countries elsewhere in the world. It is an important source of government revenue.

Ifediora (1997) as quoted by Ayoola & Adeogun (2008), said that property based tax liability is on ownership and or occupation of property and for which the value of property, rental or capital is the basis of the assessment. He also mentioned that, the person who pays the property based tax is the owner and/or the occupier of the property. He went further to say that assessment objective of property based tax is normally capital value where the tax is on the capital worth of the property as in property/tenament rating. In line with this, achieving the objective in each case is a highly technical and complex matter requiring the skills, knowledge, expertise and experience of an Estate Surveyor and Valuers.

### The nature of property tax

Property tax is a compulsory revenue levied on interests in private ownership and use of landed properties and similar assets which include ground rent, tenement rate, probate tax, capital gains tax, capital transfer tax and stamp duties. This source of revenue is used by government to defray all expenditures incurred in executing any special works or services and for the execution of any work or service of particular benefit to the whole or a part of a local government area (Aliyu, 2008; Oyegbile, 1996).

Major heads of property tax are explained thus;

Ground rent- This is a form of annual rent paid to the state government by the holder of a certificate of occupancy for the occupation of land whether it is dev eloped or not.(Section 10b of the constitution of Federal Republic of Nigeria).

Tenement rate- This is a form of tax levied at the local level to raise revenue for specific developmental purposes. Roads, refuse disposal, markets, slaughter houses, maintainance of primary school and maternity clinics are some of these developmental purposes.(Oyegbile, 1996). Ekong(2007), opined that this tax is aimed at promoting the total well being of inhabitants of the local community payable on annual basis on the value of each property within the local government area council.

Probate tax- This is levy on the total value of property which is subject of inheritanc. It is also known as Inheritance tax or Estate duty.

Capital gains tax- This form of tax is imposed on the income or proceed accruable from transactions on land by way of sale. (LRN, 2004)

Capital transfer tax- This is levy on the total value of property transfered by way of gift or bequest( that is, will).

Stamp duty- This tax is payable ad valorem, that is, proportionate to the value of the property covered by the conveyance, lease of mortgage sought to be registered, and the payment and stamping must be completed within 30 days of execution default of which attract penalty.(LFN, 1990).

# **RESEARCH METHOD AND DATA COLLECTION**

Data for this study were gotten from both primary and secondary sources. The Two(2) local governments in Minna are Chanchaga and Bosso local governments. Out of the Eleven(11) and Ten(10) wards in Chanchaga and Bosso local governments, Five(5) wards from each of the local governments were randomly selected using Cluster sampling. One(1) Neighbourhood each is randomly selected from each of the selected wards. The sampling elements in each neighbourhood were selected via systematic random sampling. The breakdown is shown in Table 1.

S/N	L.G.A	Wards	Neighbourhood	Questionnaire	Questionnaire	Percentage
				Administered	Returned	response
1	Chanchaga	Limawa A	Dutsen-kura(Hausa)	150	150	100
		Limawa B	Dutsen-Kura(Gwari)	150	150	100
		Sabongari	Sabongari	150	150	100
		Tundun-Wada South	Sauka kahuta	150	150	100
		Tundun-Wada North	Tunga(Main)	150	150	100
2	Bosso	Bosso Central I	Tayi Village	150	150	100
		Bosso Central II	Bosso low cost	120	100	83.3
		Chanchaga	Chanchaga	150	150	100
		Maikunkele	Maikunkele	150	104	69.3
		Garatu	Gidan Mangoro	50	45	90
	Total		C	1,370	1,299	94.8

Table 1: Showing the distribution of questionnaires administration in the study area

# DATA PRESENTATION AND ANALYSIS

### Property based taxes in operation in Minna

From the above list of taxes and levies approved for collection by the state government, five(5) are property based and they are;

- 1. Capital gains tax
- 2. Stamp duties (Instrument executed by individuals)
- 3. Road taxes
- 4. Business premises registration and renewal levy
- 5. Right of Occupancy fees in State Capitals.

Tax	Applicable	Amount collected per month	Amount collected per annum
Capital gains tax	No	-	-
Stamp duty	Yes	-	-
Road taxes	No	-	-
Business premises	Yes	Between N150,000 –	Between N1,800,000 -
registration		N200,000	N2,400,000.
Right of Occupancy	No	-	-

Table 2: Showing property related taxes in operation in Minna leviable by State government

Source: State Inland Revenue Office, Minna (2007)

On the other hand, the table below shows the property based taxes that are in operation in Minna. From Tables 2 and 3, two(2) property based taxes are in operation at the state level, tax on rent income(withholding tax) and Stamp duty. Withholding tax accounted for 0.07% of the internally generated revenue for the 2006 fiscal year. The possible reason is that the state government is yet to realise that property based

taxes constitute reliable and dependable source of revenue. No fund was generated from stamp duty for the said fiscal year.

S/N	Detail of revenue	2006 approved	2006 actual	2007 approved
		estimate(N)	collection(N)	estimate(N)
1	Pay as you earn (personal income tax)	960,000,000.00	510,494,138.36	960,000,000.00
2	Direct assessment	35,000,000.00	15,180,910.40	36,000,000.00
3	Tax on dividend	10,000,000.00	6,088,438.00	10,000,000.00
4	Tax on rent income(withholding)	-	396,428.00	1,250,000.00
5	Stamp duty	1,200,000.00	-	250,000.00
6	Tax oc contract	106,200,000.00	15,221,061.27	50,000,000.00
7	Tax on interest	20,000,000.00	8,788,270.67	20,000,000.00
TOTAL		1,132,400,000.00	556,169,246.70	1,077,500,000.00

Table 3: Showing Niger State Government Internally Generated Revenue

Source: Niger State government approved estimate (2007)

### Property based taxes for local government

Out of the seventeen (17) property based taxes and levies approved for collection by the local government, three (3) are property based. They include the following;

- 1. Shops and kiosks rates
- 2. Tenement rates (Property rate)
- 3. Right of Occupancy fees (excluding state capitals)

Table 4 shows the operation of the property related taxes by the local government councils in Minna. Shops/Kiosks rates and Tenement rates as shown in the Table 4 above are in operation in the local governments at the sudy area.

Table 4: Showing property related taxes levied by local government councils

S/N	Local government	Shops and Kiosks rates	Tenement rates	Right of occupancy
1	Chanchaga	Yes	Yes	Known but not in force
2	Bosso	Yes	Yes	Known but not in force

#### People's attitude to payment of property tax

Table 5: Showing the occupational distribution of respondents in Minna

S/N	Neighbourhood	Civil servants	Professionals	Self employed	Antisans
	CHANCHAGA				
1	Dutsen Kura(Hausa)	83	20	41	6
2	Dutsen Kura(Gwari)	15	5	100	30
3	Sabongari	10	9	106	25
4	Sauka-Kahuta	45	10	82	13
5	Tunga	30	30	90	-
	BOSSO				
1	Tayi Village	71	15	55	9
2	Bosso low cost	58	7	17	18
3	Chanchaga	73	14	50	13
4	Maikunkele	45	4	40	15
5	Gidan-Mangoro	2	-	30	13
	Sub total	432	114	611	142
	Total				1,299

The occupational distribution of respondents in Sampled Neighbourhoods is being represented in Table 5. The self employed and the civil servants proved to be the

major occupation of the respondents in the sampled neighbourhoods represented by 47.0% and 33.2% of the total respondents of 1,299.

### Various form of taxes paid by the respondents

In this section, various form of taxes paid in Minna is discussed.

Form of Tax	D/Kura Hausa	D/Kura Gwari	S/gari	S/K	Tunga	Tayi Villa	Bosso low cost	Chanchaga	Maikunkele	Gidan Mangoro	Total
Personal income tax	110	55	75	90	89	115	68	84	73	7	766
Value Added Tax	28	10	17	13	5	10	10	14	12	3	147
Company Tax	3	4	11	7	10	7	-	-	-	-	42
Development Tax	6	6	5	2	4	3	9	6	-	-	41
Property related taxes(Tenement	15	20	9	10	13	16	8	2	8	-	101
rate, Kiosk rates) Total											1,072

Table 6: Showing the various form of taxes paid by the respondents

From Tables 5 and 6, 90.5% of the respondents pay tax generally, out of which 71.5% is personal income tax while property related taxes stood at 9.4%. This result shows that there is negative attitude toward the payment of property related taxes in Minna.

### **Proportion of tax payment by respondents**

The respondents distribution of level of acceptance of payment of tax in the Sampled Neighbourhoods is being represented in Table 6, while Table 7 represent the various form of taxes paid by respondents.

14010 7.01	lowing i		un puym	Unt								
Category of Respondents	Dutsen kura, Hausa	Dutsen Kura, Gwari	Sabong ari	Sauka- kahuta	Tunga	Tayi Villa ge	Bosso low cost	Chanch aga	Maikunk ele	Gida n- Man goro	Total	%
Those that pay tax	140	140	141	140	134	140	91	137	93	20	1,176	90.5
Those that do not pay	10	10	9	10	16	10	9	13	11	25	123	9.5
TOTAL											1,299	

Table 7: Showing level of tax payment

From table 8, it is evident that majority of the respondents representing 90.5% pay tax, meaning that tax authority in Minna is doing much in ensuring tax payment. This could also attest to the tax collection strategy as been effective. The minority representing 9.5% who do not pay taxes are tax evaders. Though, it is appreciated that majority pay tax, the question of willingness to pay is another issue. This is addressed in the next section.

### Willingness of respondents to pay tax

Tax is a compulsory levy paid to a constituted authority by private or corporate persons for the support and promotion of specific socio-economic objectives.Despite the importance of tax, are people willing to pay? Or they pay because they must pay without any motivation? Table 9 gives the responses as to whether or not people are willing to the pay tax. Sampling people's willingness to pay tax, this research from Table 9 reveals that 41.6% of the respondents are willing to pay while 52.6% are not

willing to pay. The major reason advanced why people are not willing to pay tax is that there is no feasible gain from the taxes collected by the government.Reasonable percntage of the neighbourhood sampled still experience erratic power supply, inadequate or no water supply as well as bads road networks.

Table 8. Si	<u> </u>	0										0/
Category of	Dutsen	Dutsen	S/Gar	S/ka	Tun	Tayi	Boss	C/C	Mai	G/M	Total	%
Respondents	kura,Hau	Kura,	1	huta	ga	villag	0	hag	kuk	angor		
	sa	Gwari				e	Low cost	а	ele	0		
Will always												
be willing to pay tax	85	60	100	17	45	50	30	88	60	5	540	41.57
Will not be willing to pay tax if allowed	65	70	35	122	95	100	70	42	44	40	683	52.57
Indifferent TOTAL											76 1,299	5.85

Table 8: Showing willingness or otherwise of respondents to payment of tay

### Factors responsible for the attitude of people toward payment of property based taxes in minna

This research identifies the following as the factors responsible for the negative attitude of people toward payment of property based taxes in Minna:

1. IGNORANCE: Most of the people still lack sufficient information on what property tax is all about, why they have to pay the tax and the parameters for arriving at the amount of tax payable. Also, the introduction of taxes indiscriminately put the people in great confusion of double or multiple taxes.

2. LACK OF AWARENESS: The reseach revealed that public enlightment in fairly done. Most people complaint that issues relating to property taxation are not always spread on the pages of Newspapers, particularly the states own newspaper.

3. CORRUPT GOVERNMENT OFFICIALS: The study also show that government officials paraded tax payers places of business claiming to be generating money for government without demand notices in respect of taxes or levies being demanded. Some of the tax pavers claimed that government officials lack records and as such they could not easily trace defaulting tax payers. They mentioned that these government officials repeatedly ask for a particular form of tax even when it has been paid for. Some aggrieved tax payers also noted that some government officials put in sentiments most expecially when a tax payer could speak the native language and or if such a person is an indigen.

4. FAILURE TO USE TAX PROCEEDS FOR VISIBLE PROJECTS: People find it difficult to believe that the dividends of democracy are at their door steps. Majority of the tax payers said that this is reflected in the inadequate infrastructural facilities that characterised most of the neighbourhoods in majority of the wards in Minna. Others include;

Lack of political will on the part of government

Poverty rate of tax payers

Lack of fund/logistics on the part of government agencies saddled with the responsibilities of tax administration.

# STRATEGIES FOR POSITIVE ATTITUDE OF PEOPLE TOWARD PAYMENT OF PROPERTY BASED TAXES IN MINNA

The possible solutions to the various problems on attitude of people toward property tax payment in Minna include amongst others:-

i. Vigorous awareness campaign.

ii. Comprehensive enabling edict.

iii. Sensible and wise use of funds, collection of rates, levies and taxes should be juxtaposed with provision of amenities and infrastructures.

iv. Placing checks on multiplicity of rates, levies and taxes.

v. Resourcefulness on the part of government officials

vi. Engaging the use of Estate Surveyors and Valuers in Rating departments at the local government councils and State Inland Revenue Service respectively.

# CONCLUSION

This research has examined people's attitude toward tax payment in Minna, Nigeria. Almost half of the respondents are not willing to pay tax. With strong commitments on the part of relevant government in providing infrastructures, there will be appreciable level of willingness on the part of the tax payers.

## REFERENCES

- Aliyu A. Umar (2008), Law and Property Tax in Nigeria, Paper presented at a Mandatory Continuing Professional Development (MCPD) Workshop of the Nigerian Institution of Estate Surveyors and Valuers with the theme "*Effective Property Tax Administration as a Tool for Good Governanace*" held at Minna.
- Ayoola, A. B and Adeogun, A.S(2008), Property Tax as a Tool for Effective and Sustainable Development (A Casa Study of Minna Metropolis), Paper presented at a Two day 2008 Mandatory Continuing Professional Development (MPCD) Workshop of the Nigerian Institution of Estate Surveyors and Valuers with the Theme "Effective Property Tax Administration as a Tool for Good Governance" held at Minna.
- Charles, F.F and Marcus, T.A (2005), *Real Estate Principles*. Dearborn Real Estate Education, Chicago, 8th Edition.

Constitution of the Federal Republic of Nigeria (1999).

- Ekong, E (2007), *Nigeria: An Overview of the Proposed Property Taxation in FCT*, Daily Trust (Abuja), 14tn November Edition.
- Ifediora, G.S.A (1997), *Property Based Taxes Leviable by Local Government Council*, Paper presented at 1997 Nigerian Institution of Estate Surveyors and Valuers Seminar held at Abuja.
- Nightingale, K (2001), Taxation; Theory and Practice. London, Prentice Hall.
- Ogedengbe, P.S (2004), Formulating a Good Urban Land Policy for Nigeria, J.Hum.Ecol., 15(2): P 91-96.
- Okoni, O (2006), Governance, Taxation and Fiscal Policy in Nigeria. European Journal of Economics, Finance and Administrative Sciences- Issue 6, p41.
- Oyegbile, O.S (1996), *The Principles and Practice of Property Rating and Taxation*. King James Publications, Minna.

Personal Income Tax Act Cap,(LFN, 2004).

Stamp Duties Act, Cap 411 (LFN, 1990).