

2ND INTERNATIONAL RESEARCH AND DEVELOPMENT CONFERENCE (IRDeC-2024)

PROGRAMME OF ACTIVITIES

Day 1: Monday, 14th October, 2024

Arrival of Participants

Day 2: Tuesday, 15th October, 2024

Opening Ceremony

TIME	ACTIVITY	RESOURCE PERSON
08:00 am - 08:45 am	Arrival of Participants & Registration	Secretariat
08:45 am - 9:00 am	Arrival of invited Guests and Participants	Secretariat
9:00 am – 9:10 am	Anthems and Prayer	Guild President
09:10 am - 09:20 am	Introduction of Guests	Dr. Joel Isabirye and Ms. Josephine Nakazibwe
09:20 am - 09:30 am	Welcome Remarks by Vice Chancellor	Professor Muhammed Ngoma
09:30 am - 09:45 am	Remarks by Chairman, Board of Trustee	Al- Hajj Dr. (Hon) Hassan Bassajjabalaba
09:45 am – 10:05 am	Speech by the Guest of Honour	Dr. Monica Musenero Minister of Science Technology and Innovation
10:35 am - 11:20 am	Keynote Address	Dr. Francis Wasswa – UNDP National Economist
11:20 am - 11:40 am	Interactive Session	Secretariat
11:40 am - 12:10 pm	Coffee Break	Secretariat
12:10 pm- 12:30 pm	Lead paper I	Prof. Allam Elnour Osman Ahmed
12:30 pm - 01:00 pm	Interactive Session	Secretariat
01:00 pm - 01:30 pm	Lead paper II	Dr. Jyoti Sekhar Banerjee (Virtual Presentation)
01:30 pm – 01:50 pm	Interactive Session	Secretariat
01:50 pm - 02:00 pm	Vote of Thanks	Prof. Regina Ejemot Nwadiaro
02:00 pm – 02:50 pm	Lunch Break	Secretariat
02:50 pm - 05:30 pm	PhD Symposium	Prof. Laura Orobia and Prof. Vincent Bagire

Day 3: Wednesday, 16th October, 2024

Plenary and Technical Sessions

TIME	ACTIVITY	RESOURCES PERSON
08:00 am - 09:00 am	Plenary Session	Uganda Medical Association
09:00 am - 10:00 am	Tea Break	Secretariat
10:00 am - 01:00 pm	Technical Session	Secretariat
01:00 pm - 01:30 pm	Lunch Break	Secretariat
01:30 pm - 05:00 pm	Technical Session	Secretariat

Day 4 Thursday, 17th October, 2024

Plenary and Technical Sessions

TIME	ACTIVITY	RESOURCES PERSON
08:00 am - 09:00 am	Plenary Session	Secretariat
09:00 am - 10:00 am	Tea Break	Secretariat
10:00 am - 01:00 pm	Technical Session	Secretariat
01:00 pm - 01:30 pm	Lunch Break	Secretariat
01:30 pm - 05:00 pm	Technical Session	Secretariat

Day 5 Friday, 18th October, 2024

Plenary and Technical Sessions

TIME	ACTIVITY	RESOURCES PERSON
08:00 am - 10:00 am	Technical Session	Secretariat
10:00 am - 11:00 am	Tea Break	Secretariat
11:00 am - 01:30 am	Closure	Dr. Mustafa Mundu

Day 6 Saturday, 19th October, 2024

Departure



ABOUT KIU

Kampala International University (KIU) is a private, not-for-profit institution based in Uganda. It was established in 2001 and assumed chartered status in 2009.

In pursuit of the dream to raise the next generation of problem solvers for the East African region and indeed the whole of Africa, the University operates a multi-campus system which consists of two campuses in Uganda (The Main campus in Kampala and the Western Campus in Ishaka-Bushenyi); one other university in Dar Es Salaam, Tanzania.

The University which started as a typical degree-awarding institution has now grown into the number one Private University in Uganda and is currently ranked number 5 in the country according to the 2019 Webometric Ranking, out of 50 universities. It is a member of the Association of Commonwealth Universities, the Association of Africa Universities as well as the Inter University-Council of East Africa.

The University offers a variety of programmes in Health Sciences, Science and Technology, Engineering, Business and Management, Law, Humanities and Education.

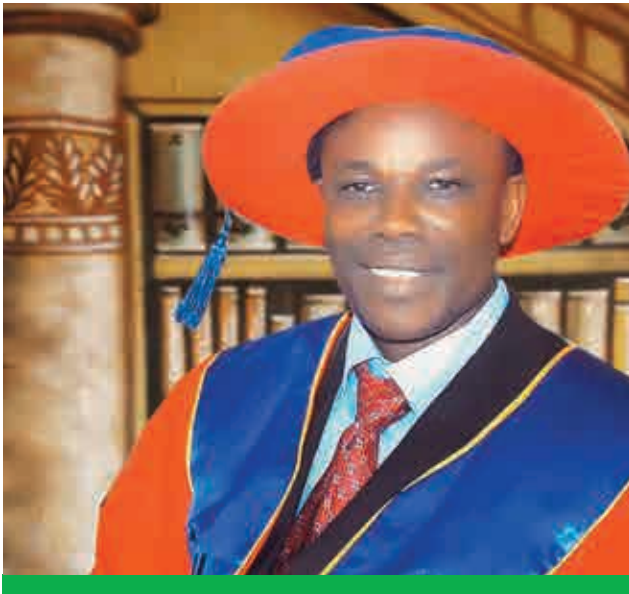
ABOUT THE CONFERENCE

International Research and Development Conference (IRDeC) is an academic conference, which main focus is to serve as an avenue through which scholars gather in order to discuss contemporary issues, innovations, technologies and challenges, with a view to proffer possible solutions. The advantages of an international conference cannot be overstretched, more so, the hosting of such a conference. It has tremendous benefits to the host institution, immediate community and the world at large.

Objective

- i. To bring together scholars from different geographical locations in order to share common ideas.
- ii. To showcase the academic prowess of KIU.
- iii. To showcase ground-breaking research presentations.
- iv. To create a perfect atmosphere for fresh thought, ideas and insight.
- v. To create an atmosphere through which KIU Postgraduate students, and the research community can interact.

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Editorial Board

Editor in Chief

Prof. V.S. Manjula

Kampala International University, Kampala, Ggaba Road, Kampala,
Uganda, East Africa

Email address: manjula.subramanian@kiu.ac.ug; jasic.manager@kiu.ac.ug

Mobile number: +91 9445549256 / +256 708469203

Managing Editor

Prof. Israel O. Obaroh

Kampala International University, Kampala, Ggaba Road, Kampala,
Uganda, East Africa

Email address: israel.obaroh@kiu.ac.ug; director-dhdr@kiu.ac.ug

Mobile No.: +2348036806479, +256 763000533

Editor

Dr. Mundu Mustafa

Kampala International University, Kampala, Ggaba Road, Kampala,
Uganda, East Africa

Email address: mundu.mustafa@kiu.ac.ug; advcrice@kiu.ac.ug

Mobile No.: +256773247249

Editor

Prof. (Dr.) Siddhartha Bhattacharyya

VSB Technical University, Ostrava, Czech Republic & Algebra University
College, Zagreb, Croatia

Email address: siddhartha.bhattacharyya@vsb.cz

Mobile No.: +91 9830354195

Editor

Prof. (Dr.) Jyoti Sekhar Banerjee

Bengal Institute of Technology, Kolkata, India

Email address: jyotisekhar.banerjee@bitcollege.in

Mobile No.: +91 9830018727

Editor

Dr. Ahmed Obaid

Department of Computer Science

Faculty of Computer Science and Mathematics

University of Kufa, Iraq



**VICE CHANCELLOR'S ADDRESS
DURING THE OPENING CEREMONY OF
THE 2ND INTERNATIONAL RESEARCH
AND DEVELOPMENT CONFERENCE
2024 @ THE IDD BASAJJABALABA
MEMORIAL LIBRARY (IBML) KAMPALA
INTERNATIONAL UNIVERSITY MAIN
CAMPUS, GGABA ROAD - KANSANGA ON
15TH OCTOBER, 2024**

Our esteemed delegates, it is yet another exciting moment as we hold our 2nd International Research and Development Conference 2024 (IRDeC 2024). On behalf of Kampala International University, I warmly welcome you all to this great conference under the theme ***“Partnership for sustainable Development: Bridging Disciplines and Solving Complex African Problems.”***

The 2nd IRDeC 2024 provides a forum that brings together academicians, the business community, development partners, policy and decision makers, experts and practitioners from the global community to discuss and share experiences that will accelerate the development of Africa. The theme for this year's conference is quite revealing. It speaks to the role of interdisciplinary, multidisciplinary and multi-sectoral partnerships in fostering the Sustainable Development Goals (SDGs) and accelerating Africa's development. The sub-themes of the conference have been deliberately selected to cover all disciplines.

This year's conference adopts a hybrid and blended mode, with both physical and online participants. This blends well with the Kampala International University's instructional philosophy to provide flexible learning and knowledge sharing modes. The conference will run for four days, with a lineup of an exciting and yet enriching program. We believe you will enjoy the thought provoking keynote addresses, the panel discussions, workshops and networking opportunities that will inspire new approaches and solutions to Africa's pressing problems. We call upon your active participation and engagement in the conference program as you take advantage of KIU's stimulating research environment.

Last year, we received 150 papers and registered 80 participants. This year we received more than 450

abstracts from all over the globe. This is not only a clear testament to the growth of our conference, but is indicative of the enthusiasm that the theme of the conference has generated. The abstracts this year came from India, United States of America, United Kingdom, South Africa, Botswana, South Sudan, Turkey, Nigeria, Uganda, Kenya, Burundi, Singapore among others. We are grateful to those that sent us these papers, the organizing committee as well as our committed technical team that reviewed these many abstracts. We shall publish the conference papers of this year's conference in reputable journal outlets – just like we did last year. We are grateful to our partners, Taylor and Francis who have agreed to publish our proceedings this year.

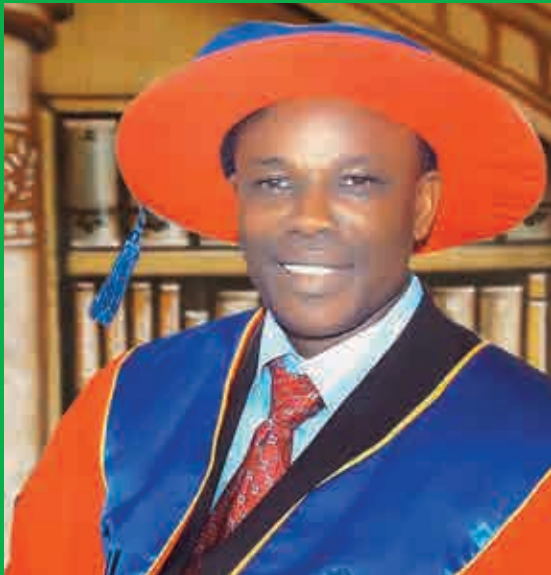
To our international participants, take this opportunity to explore the rich cultural landscape of Uganda, rich cuisines, the warm and welcoming people, beautiful weather, scenery, flora and fauna. Find time to explore the country sides and the key tourism sites in Uganda.

Once again, I welcome you all to this important gathering. I am confident that by the end of this conference, we will have not only expanded our knowledge but also deepened our commitment to solving Africa's complex problems. May this conference ignite new ideas, foster bold collaborations, and pave the way for meaningful progress. We thank you all for joining us at this important conference as we discuss and find solutions to Africa's pressing challenges. We look forward to enriching, purposeful and fruitful debates.

Sincerely

PROFESSOR MUHAMMED NGOMA, PHD

Vice Chancellor.



WELCOME ADDRESS BY THE CHAIRMAN OF THE BOARD OF TRUSTEES, HAJJI (DR) HASSAN BASAJJABALABA DURING THE OPENING CEREMONY OF THE 2ND INTERNATIONAL RESEARCH AND DEVELOPMENT CONFERENCE 2024 AT THE IDD BASAJJABALABA MEMORIAL LIBRARY (IBML) KAMPALA INTERNATIONAL UNIVERSITY, MAIN CAMPUS, GGABA ROAD KANSANGA ON 15TH OCTOBER, 2024

Our distinguished guests, colleagues and participants from across the globe, it is with great pleasure and a deep sense of honour that I welcome you all to this year's International Conference on Research and Development. On behalf of the Board of Trustees of Uganda's leading private University, I extend my warm and heartfelt welcome to you all. Your participation in this conference is a testament to your commitment to progress, knowledge-sharing, and collaborative problem-solving, and by extension your faith and belief in the research capability and commitment of Kampala International University.

The theme of this year's conference, "*Partnership for Sustainable Development: Bridging Disciplines and Solving Complex African Problems*," is timely and relevant. In an increasingly interconnected world, the challenges Africa faces are multi-faceted, cutting across political, social, environmental, and economic dimensions. From healthcare to governance, education to infrastructure, agriculture to technology, the issues are complex, but they are not insurmountable. In fact, they offer us a unique opportunity to bring together diverse minds, ideas, and expertise from across disciplines, backgrounds and intellectual leanings to forge innovative, practicable and Africa-centric sustainable solutions.

As we gather here today, we are not merely academics, practitioners, or policymakers but are problem solvers and bridge-builders. The challenges we aim to address transcend borders and sectors, requiring collective efforts that draw on the strengths of different disciplines. Whether you are an economist, scientist, engineer, sociologist, health

expert, or policy analyst, your insights are crucial to our success. Each of us brings a vital piece of the puzzle, and together, we can achieve far more than we could ever accomplish alone.

The idea of bridging disciplines speaks to the essence of what we hope to achieve during this conference. True innovation often happens at the intersections, where different fields of study and practice overlap and inform each other. Africa's challenges are unique, but the solutions need not be constrained by conventional boundaries. By fostering interdisciplinary collaboration, we are not only addressing the complexities of today, but we are also building the foundation for a future in which Africa thrives as a global leader in innovation, sustainability, and human development.

This conference serves as a platform to facilitate these critical conversations, to share knowledge, and to spark the kind of collaboration that leads to tangible results. I encourage you to fully engage in the discussions, ask questions, share your insights, and seize the opportunity to connect with like-minded professionals from different fields as we continue to explore the heights. Thank you, and I wish you all a successful and inspiring conference.

Sincerely,

HAJJI (DR) HASSAN BASAJJABALABA

Chairman, Board of Trustees

Kampala International University, Uganda.

KEYNOTE ADDRESS



Professor Allam Ahmed

PhD MSc MBA BSc (Hons) FFPH FAWB FCIM

Chartered Marketer

www.allamahmed.org

+44 (0) 777 2851 284

BIOGRAPHY

Having worked in the field of international engagement and leadership in Higher Education for almost 25 years, Professor Ahmed is considered to be a transformative leader with track record and repute in the UK and across the world particularly Sub-Saharan Africa (SSA) and the Middle East and North Africa (MENA).

He is a Professor of Knowledge Management and Sustainable Development and early 2022, Professor Ahmed joint Queen Mary University of London Faculty of Medicine and Dentistry as a **Honorary Professor and Senior Policy Fellow** at Queen Mary University of London Global Policy Institute (QMGPI). Prior to Queen Mary, Professor Ahmed spent 15 years (2004-2019) at the University of Sussex Science Policy Research Unit (SPRU) (*1st science and policy think tank in the UK*) where he established and led Sussex's most successful postgraduate programme MSc International Management.

Allam is the Co-Founder of SMART KM MODEL: *An Integrated Knowledge Management Framework for Organizational Excellence* and in the period 2009-2011, he led the implementation of the first of its kind in MENA Knowledge Management Framework (KMF) Musharaka. Musharaka was rated Excellent after extensive review and scrutiny by the Abu Dhabi Government Award for Excellence office and presented before the General Secretariat of the Executive Council as a model for the entire UAE KM projects.

He is the Founding President of World Association for Sustainable Development (WASD); Founding Director of SDGs Universities International Initiative (SDGsUNI); Founding Director of Middle Eastern Knowledge Economy Institute (MEKEI); Founder, in collaboration with the UNESCO Chair on Transfer of Technology (UNESCOTT), the International Diaspora Initiative; and member of the Scientific Council of the UNESCO Chair in Women, Science and Technology.

Allam is also the Founding Director of Africa SDGs Universities (Africa SDGsUNI) which he officially launched on Tuesday 4th July 2023 (Windhoek: Namibia) at the 22nd Conference of Rectors, Vice Chancellors and Presidents of African Universities (COREVIP), organised by the Association of African Universities (AAU) and hosted by the University of Namibia.

In his capacity as the President of ([WASD](#)), Prof. Ahmed led WASD's [strong partnership with the UN](#) Joint Inspection Unit (JIU) and other UN Agencies: global launch of [SDGsUNI](#) at the UN Palis de Nations in Geneva, Switzerland (22nd July 2024) (watch H. E. Dr Tatiana Valovaya, Director-General, UN Office at Geneva (UNOG), Switzerland official launch video [here](#)); UN Conference on "Public-Private Partnerships for the Implementation of the 2030 Agenda for Sustainable Development" at the Palais de Nations in Geneva, Switzerland, 2018 (Report); UN project A.435 "Strengthening the Policy Research Uptake in Service of the 2030"; Making Science, Innovation and Research work for the Sustainable Development Goals, IMO, London, 2019 (Report); and Policies and platforms in support of learning: towards more coherence, coordination and convergence, 2020 (Report).

Prof. Ahmed main areas of research focus on: (a) *globalisation and competitiveness with topics relating to marketing; strategic management; entrepreneurship; and government macroeconomic policies* and (b) *the role of science, technology and innovation in achieving sustainable development (SD)*. This covers topics relating to marketing and commercialisation of technological products and innovation; knowledge and technology transfer and management; productivity gap analysis & modeling; SD; industry & sustainability; and achieving the UN Sustainable Development Goals (SDGs). He published widely covering various disciplines and have produced more than 120 publications, including 39 books and numerous articles in international peer-reviewed journals, books, conferences proceedings and working papers all rated in various UK Research Assessment Exercise as world-leading and internationally recognised.

Prof. Ahmed is the Founding Editor-in-Chief of 10 international refereed journals including the World Journal of Entrepreneurship, Management and Sustainable Development; World Journal of Science,

Technology and Sustainable Development; International Journal of Innovation and Knowledge Management in Middle East and North Africa; International Journal of Sudan Research, etc. He is also the Editor Book Series: World Sustainable Development Outlook; Globalization, Technology and Sustainable Development; Middle East & North Africa; and Palgrave Studies of Sustainable Business in Africa.

Prof. Ahmed completed his Ph.D. in Economics in two years at Edinburgh Napier University, UK; awarded the Royal Agricultural University (RAU) Scholarship and Prestigious Book Prize for Best MSc/MBA Dissertation; Fellow (FFPH) Faculty of Public Health (FPH), UK; Fellow (FCIM) and Chartered Marketer (CM) Chartered Institute of Marketing (CIM), UK; and Fellow (FAWB) Academy of World Business, Marketing and Management Development (AWBMMD) Australia. Listed in the Who's Who in the World 2009-2020 and 2021 Who's Who in the World Lifetime Achievement Award, Who's Who in Finance and Business 2009/2010 and Who's Who in America 2012-2014 published by Marquis Who's Who, USA.

LEAD PAPER II



Dr. Jyoti Sekhar Banerjee

*Department of Computer Science and Engineering (AI & ML)
Bengal Institute of Technology, Kolkata, India*

BIOGRAPHY

Dr. Jyoti Sekhar Banerjee is currently serving as the Head of the Department in the Computer Science and Engineering (AI & ML) Department at the Bengal Institute of Technology, Kolkata, India. Additionally, He is also the Professor-in-Charge, R & D and Consultancy Cell & Nodal Officer of the IPR Cell of BIT. Dr. Banerjee did his Post-Doctoral Fellowship at Nottingham Trent University, UK, in the Department of Computer Science. He also completed the Post Graduate Diploma in IPR & TBM from MAKAUT, WB. He has teaching and research experience spanning 20 years and

completed one IEI funded project. He is a member of the CSI, IEEE, ISTE, IEI, ISOC, IAENG and fellow of IETE. He is present Secretary-cum-Treasurer of the ISTE WB Section and Secretary of the IETE, Kolkata. He is the Immediate Past Secretary of the Computer Society of India, Kolkata Chapter. He has published over Seventy papers in various international journals, conference proceedings, and book chapters. So far, he has published Ten (15) edited books and Four Text Books. Currently, he is processing few more edited books in reputed international publishers like Springer, CRC Press, etc. He is also processing four more textbooks; those are now in press. He is serving as Editor-in-Chief of the American Journal of Advanced Computing (AJAC), Smart Society, USA; Associate Editor of the Indian Journal of Technical Education (IJTE) (UGC-CARE List Journal); and Series Editor for "Advances in Disruptive Technologies and Generative Artificial Intelligence", published by CRC Press, USA. He is also the Series Editor for the Conference Proceedings Series on Futuristic Intelligent and Smart Technologies (FIST), CRC Press, USA. Currently, he is serving as the General Chair of ICHCSC 2022, 2023, and 2024; General Co-Chair of GCAIA 2021. Dr. Banerjee is the Program Chair of the Human 2023, 2024 & 2025, AAIDS 2024. Dr. Banerjee is the Organizing Chair of the EAIT 2024, ICNSBT 2023. 2024, ICACA 2024 etc. Dr. Banerjee, is served as a Guest Editor of ICAUC_ES 2021 and ICPAS-2021 issues in IOP journal of Earth and Environmental Science, Physics, & MAICT 2021 issues in AIP Conference Proceedings, all are Scopus-indexed proceedings. His areas of research interests include Computational Intelligence, Cognitive Radio, Sensor Networks, AI/ML, Network Security, Different Computing Techniques, IoT, WBAN (e-healthcare), and Expert Systems.

Lead paper II

Title: Social Internet of Things: A Potential Enabler for Industry 6.0

Abstract: The Social Internet of Things (SIoT) signifies a notable technological advancement, merging the connection of the Internet of Things (IoT) with the social dynamics of digital networks. This amalgamation may operate as a pivotal catalyst for Industry 6.0, characterised by human-robot collaboration, autonomous systems, and smart factories that flourish through networked intelligence. SIoT improves decision-making, data sharing, and automation processes by promoting communication among devices, systems, and humans in a socially conscious manner. This feature is essential in Industry 6.0, which prioritises personalised, flexible, and intelligent production environments. Through SIoT, industries may utilise real-time information, predictive maintenance, and improved resource management, resulting in increased efficiency, sustainability, and human-centered innovation.

AGRICULTURE, BIOLOGICAL AND ENVIRONMENTAL SCIENCES

01 IMPACT ASSESSMENT OF LAND SURFACE CHARACTERISTICS ON GEOSPATIAL DISTRIBUTION OF LAND-USE/LAND COVER

Abdulkadir T. Sholagberu, Adeleke Bolaji, Jonan
Bainomugisha, Ako Terseer, Lawrence Muhwezi, Philip
Tibenderana, Muzaasi S. Pascal, Byamukama Denis,
Tanko A. Joseph

Kabale University, Kabale, Uganda

**Corresponding author's email address: tsholagberu@kab.ac.ug*

Abstract

Mambilla Plateau has recently witnessed a sporadic increase in anthropogenic activities leading to the conversion of land use/land cover (LULC) from its natural vegetation to urbanized or agricultural covers. The impacts of land surface characteristics on the spatial distribution of LULC are not often studied, despite its significance in sustainable environmental management. This paper evaluated the impacts of slope, elevation, and aspect as land surface characteristics on LULC in the mountainous Mambilla Plateau using remote sensing and Geographic Information System (GIS). Atmospherically corrected Landsat 8 data and hydrologically corrected Digital Elevation Model (DEM) were processed in the ArcMap environment to extract LULC and land surface characteristics maps, respectively. The maximum likelihood classification technique was considered in developing the LULC map. The LULC classification accuracy of 84.37% was achieved. The elevation range of 1,451-1,690 m had the highest proportion of 45.20%, while slope ranges of 4.5-8.5o and 30.5-36.5o had the highest (24.3%) and lowest (1.81%) proportions of total area, respectively. The northeastern-facing land occupied about 13.48% of the total study area. It was observed that settlements and agricultural lands were mostly found in lower elevations, while forest lands were at higher elevations. Steep slopes and north-facing lands were dominated by forest lands, while the gentle slopes predominantly had built-up areas and agricultural land as major land uses. This study would be beneficial to policymakers in sustainable land use planning, utilization, and management.

Keywords: geospatial, land surface characteristics, land use, land cover.

02 ECONOMIC ANALYSIS OF SMALL-SCALE SWEET POTATO PRODUCTION IN SUMAILA LOCAL GOVERNMENT AREA OF KANO STATE

AbdulMalik Rabiul Musa

*Department of Animal Health and Production Technology,
Federal Polytechnic Kano-Kano, Nigeria*

Email address:

rabiulmusaabdulmalik@gmail.com

Abstract

The study examines the resource use efficiency upon socio-economic characteristics in sweet potato production among small-scale farmers in Sumaila Local Government Area of Kano State. Primary data were collected from 65 small-scale sweet potato producers with the aid of a structured questionnaire from five wards. Based on their production strength, thirteen sweet potato farmers were chosen from each ward using the simple random sampling technique. The analytical tools employed were descriptive statistics, gross margin analysis technique, correlation analysis, and production function analysis. The result of the correlation analysis reveals that educational status, farm size, and farming experience had a strong positive correlation with sweet potato output, while the result of the empirical Cobb Douglas production function reveals that the production inputs were able to explain variation in the level of output significantly by eighty percent [80%]. The findings of the study showed that the cost of production was N77,700.00 per hectare, with labor accounting for the highest cost item. The gross margin obtained was N79,800.90 per hectare. The study equally shows that the factor inputs considered in sweet potato production were inefficiently utilized, as demonstrated by their various efficiency ratios, and with regards to return to scale, sweet potato farmers exhibited increasing return to scale. The problems of sweet potato production include inadequate capital, high-cost labor and farm inputs, pests and diseases, and the far-most lack of extension services.

Keywords: Sweet-Potato, Farmers, Efficiency, Gross Margin, Correlation, Production, Kano.

03 YOUTH EMPOWERMENT AND TERTIARY INSTITUTIONS-LED INITIATIVES ON HEALTH, FOOD, AND ENVIRONMENTAL SUSTAINABILITY IN NIGERIA

Aliyu Idris Funtua

Federal College of Education, Katsina, Nigeria

Email address and phone number: aliyumaikeji@yahoo.com

Abstract

The global community faces significant challenges

in achieving sustainable development, particularly concerning health, food security, and environmental degradation. Addressing these interconnected issues requires a multifaceted approach that engages and empowers youth, the future custodians of our planet. Tertiary institutions (TIs) serve as vital hubs for knowledge and human capital development, playing a crucial role in empowering young people to drive positive change in health, food sustainability, and environmental stewardship. However, a pressing question arises: how can TIs fulfill these expectations alongside their academic mandates? This article reviews existing knowledge and practices to highlight multidimensional strategies TIs can employ to empower youth in promoting healthy lifestyles, sustainable food systems, and environmental sustainability. By leveraging their resources, expertise, and community connections, TIs can integrate these critical areas into interdisciplinary academic programs. Such integration is essential for nurturing a generation of young leaders who understand the challenges and are equipped to develop innovative solutions, thereby advancing the United Nations' Sustainable Development Goals (SDGs). The advocacy emphasizes that initiatives must align with national and international policy frameworks, including the SDGs, to enhance contributions and unlock potential funding and support mechanisms.

Keywords: Sustainable development, youth empowerment, health, food, environmental sustainability.

04 YOUTHS TOMATO FARMERS' ADAPTATION STRATEGIES TO CLIMATE CHANGE IN ONDO STATE, NIGERIA

Aminu, Oluwafunmilayo Olarewaju

*Department of Agricultural Economics and Extension,
Olusegun Agagu University of Science and Technology, Ondo
State, Nigeria*

Email address: funmiaminu83@gmail.com

Abstract

This study explores how young tomato farmers in Ondo State, Nigeria, adapt to climate change, providing insights for developing effective climate-smart agricultural interventions. Using a multistage sampling method, 75 youths aged 18–40 from three local government areas were selected. Data was gathered through questionnaires and analyzed using descriptive and inferential statistics. The average age of respondents was 33.3 years, with most being male (88%), married (54.7%), and formally educated (82.7%). The average farm size was 12.35 acres, and average annual income from tomato sales was 6,157,333.33 naira. Around 46.7% sold their produce at the farm gate, 53.3% received training, and 50.7% had access to extension services. Key adaptation

strategies included crop diversification, integrated pest management, and drought-resistant tomato varieties. However, these strategies were hindered by limited access to climate information, regulatory barriers, and technological constraints. Factors influencing the adoption of strategies included geographical location, land tenure, technical knowledge, cost-effectiveness, and risk perception. Significant relationships were found between the constraints, influencing factors, and adaptation strategies used ($r = 0.568$ and $r = 0.603$, $p = 0.000$). The study recommends strengthening climate-smart agriculture, enhancing capacity building, improving access to climate information, and providing financial support to farmers.

Keywords: climate change, youths, tomato farmers, adaptation strategies, constraints.

05 SURVEY OF INCIDENCE OF GRASSCUTTER (*Thryonomis swinderianus*) ON SOME SELECTED SUGARCANE PLANTATION IN KANO STATE, NIGERIA

Abubakar Aminu Ashiru

*Department of Animal Health and Production Technology,
Federal Polytechnic Kano Kano-Nigeria.*

Corresponding author's email: abubakaraminu830@gmail.com,

Abstract

All perennial grasses belong to the genus *Saccharum officinarum* L., which is native to warm temperate to tropical climates (Family: Poaceae; Tribe Andropogoneae). Sugarcane is grown in more than 200 countries, and 1,740 metric tons were produced worldwide in 2008. In Kano State, Nigeria, a survey was done to determine the prevalence of grasscutter (*Thryonomis swinderianus*) in a few chosen sugarcane plantations. A carefully designed questionnaire was distributed to each responder, and descriptive statistics were used to examine the data gathered for the study. The results revealed that every respondent observed and reported a grasscutter attack on their farm, and it was discovered that the majority of the farmers in all regions were men. The results indicate that the sugarcane plantations were harmed by the grasscutter, and the effects of the grasscutter primarily damage the crop's roots, accounting for around 33% of the total damage produced by the insect. The result also revealed that the growing sugarcane is a very profitable business. It was suggested that additional pest incidence to sugarcane should be assessed in order to determine another impact of these pests on sugarcane production, and the farmers should be trained on how to appropriately manage grasscutter infestations.

Keywords: Grasscutter, sugarcane plantation, pest incidence, Kano State, Nigeria.

06 DETERMINATION OF OXIDES PRESENT IN PLANTAIN AND BANANA PEELS USING XRF

^{*1}Amoren, Lilian Ekiuwa, ²Iguisi, Akugbe Egbuwa, ³Iyekowa, Osaro

^{1,2}Department of Chemical Engineering, Edo State Polytechnic, Usen, Edo State, Nigeria.

³Department of Chemistry, University of Benin, Benin City, Edo State, Nigeria.

*Corresponding author's email address:
amorenlilian16@gmail.com

Abstract:

Plantains and bananas are tropical fruits that are widely consumed in many parts of the world. While the flesh of these fruits is well-known for its nutritional value, the peels, generated in large quantities from homes and industrial processing, are often discarded as waste. These wastes end up in landfills, unregulated grounds, and rivers. In Nigeria, these peels are typically discarded as waste or used as animal feed. The peels have been recognized to be rich in some metals and non-metals oxides, hence useful for different purposes, such as in the production of soaps and fertilizers. This study investigated the composition of oxides in plantain and banana peel ash (PPA and BPA). The ashes were prepared separately by incinerating the peels at a temperature of 600 °C for 3 hours using a muffle furnace. The ash was then ground to a fine powder and then analyzed using x-ray fluorescence. The results revealed the presence of similar oxides in PPA and BPA in different compositions. The oxide compositions, in moles, of PPA include MgO (5.547), Al₂O₃ (2.468), SiO₂ (3.012), CaO (59.139), and K₂O (21.304), while those of BPA include MgO (16.778), Al₂O₃ (1.310), SiO₂ (8.370), CaO (12.822), and K₂O (43.094). The high compositions of CaO and K₂O present in both PPA and BPA suggest that they are valuable sources of raw material for the production of catalysts and soaps.

Keywords: plantain, banana, oxides, x-ray fluorescence

07 BIO-ACCUMULATION OF HEAVY METAL (Cadmium) IN TILAPIA FISH (*Oreochromis niloticus*) AT KANGIMI DAM AND NATIONAL WATER RESOURCES KADUNA, KADUNA METROPOLIS, KADUNA STATE NIGERIA

^{*1}Abba I.A., ¹Abubakar M., ¹Karaye S.I., ¹Bilkisu A., ¹Mukhtar U. M., ²Tukur S.T., ³Falalu. M.A

¹Department of Animal Health and Production Technology, Federal Polytechnic Kobo, Kano State Nigeria.

²Department of Science Laboratory Technology, Federal Polytechnic Kobo, Kano State Nigeria. ³Department of Animal Health Technolgy, Audu Bako College of Agriculture, Danbatta,

Kano State Nigeria.

*Corresponding author's email address:
abbamusa35@yahoo.com;

Abstract

Bioaccumulation of heavy metals (cadmium) was evaluated between September and October 2023 in samples of tilapia fish (*Oreochromis niloticus*) from two sampling locations in Kaduna metropolis, Kaduna state, Nigeria. The concentrations of cadmium were measured in the gills, kidneys, and livers of the fish that were collected from Kangimi Dam and National Water Resources fish ponds repeatedly. The concentrations of the heavy metal were quantified using atomic spectrometer high-performance liquid chromatography (AAS-PHLC). The data collected was subjected to analysis of variance (ANOVA) for calculation of mean concentrations. The mean concentrations of cadmium analyzed in gills, livers, and kidneys collected from Gangimi dam were -0.045 ± 0.011 mg/kg, -0.056 ± 0.006 mg/kg, and -0.055 ± 0.012 mg/kg, while those collected from Kaduna National Water Resources fish ponds were -0.098 ± 0.004 mg/kg, -0.107 ± 0.001 mg/kg, and -0.097 ± 0.006 mg/kg, respectively. Among all the organs investigated, the liver was found to be the organ with the highest cadmium concentration and the organ with the highest affinity for the cadmium accumulation. But this difference was not statistically significant ($p > 0.05$). However, the overall cadmium concentration from the two sampling points did not exceed the limits stipulated by W.H.O. and F.A.O. (0.05 mg/kg). Therefore, the present study revealed that the heavy metals of interest do not pose serious health threats or risks to humans and animals in the study area when consumed, and the species of *Oreochromis niloticus* is naturally free from cadmium contamination. However, the study recommends that further studies on the bioaccumulation and accumulation factors of other heavy metals in the study area should be conducted.

Keywords: Bio-accumulation, Cadmium, Concentration Heavy Metals, Kaduna, Tilapia Fish.

08 EVALUATION OF FADAMA III PROGRAMME EFFECTIVENESS IN TERMS OF AGRICULTURAL GROWTH AND POVERTY REDUCTION IN CROSS RIVER STATE NIGERIA

¹Abanbeshie, ²Jeremiah A., ³Abuokwen Augustine, ⁴Adigeb, Emmanuel.

Department of Continuing Education and Development Studies, University of Calabar, Nigeria

Abstract

The study was aimed at evaluating Fadama III program effectiveness in terms of agricultural growth and poverty reduction in Cross River State. To achieve these objectives,

two research questions were raised to guide the study. Literature was reviewed empirically and theoretically according to the subvariables of the study. The study adopted a descriptive survey design with a stratified and purposive sampling technique to select a total of 552 respondents, which constitute 10% of the population. A questionnaire tagged ‘Evaluation of the impact of the Fadama III Project Questionnaire (EFPQ)’ was used for data collection. The questionnaire was validated by experts in measurement and evaluation, and the reliability was established using Cronbach alpha, and the coefficient of the subscales ranged from .79 to .88, which is an indication that the instrument measures consistently what it was purported to measure. Data collected were analyzed using simple percentages and bar graphs, and the result showed that Fadama III in Cross River State has not been effective to ensure that agricultural growth is achieved and poverty is not reduced at all. Thus, it was recommended that Fadama III project managers should ensure that beneficiaries have access to agricultural subsidies such as pesticides, herbicides, and fertilizers that can help boost agricultural growth in the state and that the state program coordinator and monitoring and evaluation unit of the project should ensure strict compliance with the local development plan of each FUG so that the expected result can help reduce poverty among beneficiaries.

Keywords: agricultural growth, poverty, poverty reduction.

9 POST-HARVEST MANAGEMENT IN AFRICA: A REVIEW OF INNOVATIVE TECHNOLOGIES AND MULTIDISCIPLINARY APPROACHES FOR REDUCING FOOD LOSSES

¹Ariyo, D. O., Ahmed, T., ²Olowolaju, E. D., ¹Onyegbula, A. F., ³Solana O. I., ¹Adediran, B. I. and ¹Atanda, S.A.

¹Nigerian Stored Products Research Institute (NSPRI), Ilorin, Kwara State, Nigeria

²Department of Biosciences and Biotechnology, Faculty of Science, University of Medical Sciences, Ondo City, Ondo State, Nigeria.

³Department of Home Science and Hospitality Management, Olabisi Onabanjo University, Ayetoro Campus, Ogun State, Nigeria

*Corresponding author's email address and phone number: ahmedtanakalatum@yahoo.com

Abstract

Food and nutritional security are pressing global challenges, exacerbated by the increasing population. An integrated and innovative approach is needed to ensure sustainable food production and consumption in the African community. This study outlines post-harvest

losses, their impact, innovative technologies to reduce losses, and multidisciplinary approaches to address this issue. An estimated 60% of the total crop harvested is lost due to post-harvest losses in many African countries, leading to high rates of hunger, decreased edible food mass, reduced nutritional value, low income for farmers, and compromised food security as well as livelihoods. Successful technologies for managing food losses include proper storage, handling, and transportation; suitable packaging materials and design; and proper monitoring and sensing technologies. Moreover, other approaches can be integrated, such as extension services combining agronomy and material science and policy frameworks supporting post-harvest management. Successful post-harvest management initiatives in Africa have identified other promising and cost-effective technologies, including hands-on training and capacity building for farmers and establishing country-level post-harvest working groups that connect researchers and other food value chain actors concerned about reducing post-harvest losses. A post-harvest loss reduction strategy should be integrated into agricultural programs in Africa in order to provide technical advice and affordable solutions to farmers.

Keywords: Food security; Post-harvest Management; post-harvest loss; sustainable; technology

10 ASSESSMENT OF LAND USE CHANGES ON HADEJIA RIVER SYSTEM, KANO REGION, NORTHWESTERN NIGERIA

¹Tukur, U.G., Abdulhamid, A., Badamasi, M.M. and Haruna, S.U.

Federal Polytechnic Kano, Kano State, Bayero University, Kano

*Corresponding author's email address: usmantukurgaro@fedpolykano.edu.ng adnanuabdul@yahoo.com mmbadamasi@yahoo.com hsusman247@gmail.com

Abstract:

This study assessed land use changes in the Hadejia River system, focusing on temporal variations between 1988 and 2018. Utilizing Land Use Land Cover (LULC) data downloaded from USGS Landsat images from 1986, 1999, and 2018, with a spatial resolution of 30 m, we conducted change detection analysis. The findings indicate significant transformations in the river regime over the 30-year period. Eight LULC classes were identified, with conversions occurring across the upstream, midstream, and downstream sections. The changes are attributed to a variety of factors, including ecological conditions, technological advancements, and socioeconomic and institutional frameworks. Notably, land use changes have significantly impacted river flow, leading to an 108% increase in run-off despite a decrease in precipitation. This increase was linked to a rise in cultivated areas, expansion of bare soil, and a

reduction in natural vegetation. Additionally, changes in land use downstream of the geological boundary between the Basement Complex and Chad Formation had a diminished effect on run-off due to the river transitioning from an effluent state to an infiltrating one. To mitigate adverse impacts, we recommend establishing a formal irrigation scheme upstream, dredging the river to maintain consistent flow, and promoting tree planting, afforestation, and reforestation across the basin. Implementing early flood warning systems and enhancing public awareness on climate outlooks will also be crucial for effective planning and decision-making, ultimately reducing losses of lives and property while improving the livelihoods of local communities.

Keywords: River, Land Use, Regime, Inflow, System

11 NUTRIENTS MANAGEMENT FOR ONION (*Allium cepa* L.) PRODUCTION IN SUDAN SAVANNA ZONE OF NIGERIA

Yunusa Mustapha

Department of Agricultural Education, Federal College of Education (Technical), Gombe, Nigeria

Email address: myyunusan64@gmail.com

Abstract

Inappropriate fertilizer application and poor soil fertility management practices are among the factors constraining onion production in the Sudan Savanna zone of Nigeria. A field experiment was conducted at the students' demonstration farm, Department of Agricultural Education, Federal College of Education (Technical) Gombe, from June to October 2022, to assess nutrient management practices for onion production. Treatments included T₀ (0 t/ha PM + 0 kg NPK), T₁ (20 t/ha PM), T₂ (15 t/ha PM + 50 kg NPK), T₃ (10 t/ha PM + 100 kg NPK), T₄ (5 t/ha PM + 150 kg NPK), and T₅ (200 kg NPK/ha). The experiment was laid out in a randomized complete block design (RCBD) with three replications. Plants treated with 20 t PM/ha recorded the tallest plants (45.17 cm), produced more leaves per plant (12.67), average thin bulb neck (4.80 cm), and average big bulb neck (12.77 cm), while the least values were obtained from the control. The longest leaf (17.37 cm) was recorded from plants treated with 10 t/ha poultry manure + 100 kg/ha NPK, and the longest days to maturity were obtained from plants treated with 200 kg/ha NPK, with least values of 11.10 cm and 76 days, respectively. Plants treated with 20 t/ha PM performed relatively better than other treatments in most of the parameters measured but were not significantly different from those applied with 10 t/ha + 100 kg/ha NPK; thus, application of 10 t/ha + 100 kg/ha is recommended for the farmers in the study area for optimum production of onions.

Keywords: organic manure, NPK, onion, gombe, growth, yield.

12 IMPACT OF FUEL SUBSIDY REMOVAL ON AGRICULTURAL PRODUCTION AMONG SMALLHOLDER FARMERS IN CROSS RIVER STATE, NIGERIA

Abanbeshie, Jeremiah A, Malachy, Ashywel Ugbaka, Uyang, Francis Abul

Department of Continuing Education and Development Studies, University of Calabar, Nigeria

Department of Economics, University of Calabar, Nigeria.

Department of Sociology, Nigeria University of Calabar

Abstract

The study looked at how smallholder farmers in Nigeria's Cross River state fared agriculturally after fuel subsidies were removed. The study was directed by four objectives. 120 smallholder farmers received standardized questionnaires, which were used to collect data. A multistage random selection approach was employed in the study to identify farming households from each hamlet. The data were analyzed using Likert-type scales, regression, and descriptive statistics. The removal of fuel subsidies has had a negative impact on agricultural activities in the study area, according to the results of logistic regression. These challenges include rising transportation costs, a lack of vehicles to transport produce to markets due to high fuel prices, low sales, and finally, rising prices for agricultural commodities currently available in the nation. The study submits that agriculture is a profitable sector for young people to pursue after seeing that youngsters between the ages of 20 and 29 (64.2%) dominated in the field. The results showed that while the distance between the farms and the market is a significant factor contributing to the high cost of transportation, it also has an impact on the price of agricultural produce. As a result, the government ought to assist rural farmers by building roads, offering incentives, better market access, and subsidized transportation. In order to lessen burdens for residents, especially smallholder farmers in Cross River State, the report recommended that careful research be prioritized before enacting policies like the reduction of gasoline subsidies.

Keywords: Fuel Subsidy, Smallholders' Farmers, Agricultural Production, Transportation

13 DESIGN OF A HYPERLEDGER FABRIC BLOCKCHAIN-BASED MODEL FOR FERTILIZER DISTRIBUTION ECOSYSTEM IN NIGERIA

***¹Saliu Adam. Muhammad, ²Hashim Ibrahim Bisallah, ³Isaac Abiodun, ⁴Muhammad Baba Hammawa, ⁵Idris Mohammed Kolo**

¹Department of Computer Science, School of Information

Abstract

Farmers, the government, and the economy suffer huge losses due to the various obstacles that Nigeria's traditional fertilizer distribution ecosystem faces. These challenges include price upsurges, policy reversals, corruption, inefficiency, ineffectiveness, and a lack of transparency. To overcome these concerns, this paper reviews the major regulations of the governments and suggests a Hyperledger Fabric Blockchain-Based Design Model. The distribution of fertilizer would be facilitated by the model's decentralized, transparent, and impenetrable network, which would guarantee product quality and authenticity. The transportation of fertilizer from producers to farmers could be instantly tracked, seen, and verified. Smart contracts would handle payment processing and inventory control, which would cut down on fraud, diversion, and theft. Wholesalers, banks, blenders, retailers, importers, exporters, manufacturers, and farmers are among the stakeholders in the network. The model is intended to increase efficiency, lessen costs, and boost food security in Nigeria, thereby providing a scalable solution for the agricultural segment.

Keywords: Ecosystem, Hyperledger, Blockchain; Fertilizer, Agricultural, Model and Ecosystem.

14 ANALYSIS OF ANTIOXIDANT VITAMINS, TOTAL PHENOLIC CONTENT AND ANTIOXIDANT CAPACITY IN NEOCARYA MACROPHYLLA (GINGER BREAD PLUM) UNDER DIFFERENT PRESERVATION TECHNIQUES

Muhammad Salihu Ibrahim , Abubakar Abdullahi , Abubakar Usman Zage , Rukayya Magaji Aminu

Corresponding author's email address:

muhammadibrahim1247@gmail.com

Abstract

In this study, ripe fresh, shade and sun-dried fruits of Neocarya Macrophylla (ginger bread plum) samples were analyzed for vitamin E and vitamin C using high performance liquid chromatography (HPLC). Total phenolic contents and antioxidant capacity were determined by using spectrophotometer. The amount of vitamin E and C in fresh, shade dried and sun-dried samples were found to be 15.11 ± 1.53 and 8.21 ± 0.72 , 11.63 ± 1.23 and 6.17 ± 0.11 , 6.89 ± 0.15 and 2.73 ± 0.08 mg/100g respectively. The results showed a significant decrease ($p < 0.05$) in the amount of vitamins when compared with the fresh values. The total phenolic content in the fresh sample was found to be 613.24 ± 9.31 mg/100g DW GAE. Drying under the

sun significantly decreased ($p < 0.05$) the total phenolic content to 317.56 ± 5.33 mg/100g DW GAE indicating 48.21 % decrease. TEAC and IC50 are good indicators of antioxidant activity and in fresh samples the TEAC and IC50 were found to be 36.19 μ mol Trolox/g DW and 23.62 mg/mL respectively, while in sundried samples was found to be 19.14 μ mol Trolox/g DW and 35.17 mg/mL respectively. However, the antioxidant activity was found to significantly decreased ($p < 0.05$) in sun dried samples when compared with the fresh values. The present study shows that the shade drying method is a better technique for preserving Neocarya Macrophylla (ginger bread plum) fruit for later consumption.

Keywords: Neocarya Macrophylla, vitamins, antioxidant capacity, phenolic content.

15 ASSESSMENT OF POLLUTION STATUS OF KAFIN CHIRI DAMS USING SELECTED PHYSICOCHEMICAL PARAMETERS IN KANO STATE, NIGERIA

¹Usman I.B, and ²Maitera, O. N.

¹Department of Science Laboratory Technology, Federal Polytechnic Kano, Kano state Nigeria ²Department of Chemistry, Moddibo Adama University, Yola Adamawa state, Nigeria

Corresponding author's email address: isahbalan@gmail.com,

Abstract

Physicochemical parameters of kafin-chiri were investigated for three season to determine the quality of water. Water samples were collected and analyzed using standard methods. Four sampling sites (KFA, KFB, KFC and KFD) were chosen on the Dam based on the geographical positioning. pH, Temperature, Conductivity, Turbidity, Total Dissolved Solid (TDS), Total Hardness (TH), Biological Oxygen Demand (BOD), Dissolved Oxygen (DO), Chemical Oxygen Demand (COD), Suspended Solid (SS), Chloride Cl-, Nitrate (NO₂-), Nitrite (NO₃-), Phosphate (PO₄²⁻) were analysed using standard procedure. The mean values of these parameters indicate the effectiveness of the treatment process on suspended solids, turbidity, NO₃- and color. From the result obtained it shows a high value of nitrates and this might be as a result of the use of nitrous based fertilizer in the sampling location. There is significant variation ($P < 0.05$) between the values of color, nitrate, phosphates temperature, suspended solids and conductivity, observed for the three seasons. The overall quality of Kafin-Chiri reservoir was found to be within the WHO recommended value for drinking water. It is therefore recommended that proper attention need to be given to the water body by appropriate authorities due to its possible health implication on the consumers through continuous monitoring so as to track any adverse environmental changes in the dam. KEY WORDS:

16 DETERMINATION OF MOISTURE CONTENT AND REFRACTIVE INDEX OF HONEY OBTAINED FROM BIRNIN-KEBBI MARKET

Aliyu Saidu, Aati Rilwan and Garba D. Sani

Corresponding author's email address: deekolo152@gmail.com

Abstract

Honey, which has been used as a food and medicine since ancient times contains mainly carbohydrates and other minor constituents including proteins, amino acids, lipids, organic acids, minerals and vitamins. It is a naturally sweet food produced by the *Apis mellifera* bees, which collect the plant nectars, secretions, or secretions of insects feeding on these parts, and then produce the honey after a series of specific treatments. Adulteration of the honey affects its nutritional and medicinal value. This prompts for its quality to verify the authenticity of the product and to reveal the possible presence of artificial components or adulteration. In this research ten (10) different samples of honey are randomly obtained from Birnin Kebbi market and their moisture contents, brix value and refractive indices are determined. From the results, Sample 2 has the highest moisture (15.5%) while sample six has the least moisture content (1.3%). The higher the moisture contents the lower the quality and vice versa. In the other hand, sample eight (8) has the highest brix value (85.8) and sample 1 has the least (60). However, the entire results shows that the honey is relatively within the accepted values for consumption.

Keywords: Moisture, Brix Value, Refractive index, Honey, Birnin Kebbi.

17 POST-HARVEST MANAGEMENT IN AFRICA: A REVIEW OF INNOVATIVE TECHNOLOGIES AND MULTIDISCIPLINARY APPROACHES FOR REDUCING FOOD LOSSES

Ariyo, D. O., Ahmed, T., Olowolaju, E. D., Onyegbula, A. F., Solana O. I., Adediran, B. I. and Atanda, S.A.

Corresponding author's email address: abmedtanakalatum@yahoo.com

Abstract

Food and nutritional security are pressing global challenges, exacerbated by the increasing population. An integrated and innovative approach is needed to ensure sustainable food production and consumption in the African community. This study outlines post-harvest losses, their impact, innovative technologies to reduce losses, and multidisciplinary approaches to address this

issue. An estimated 60% of the total crop harvested is lost due to post-harvest losses in many African countries, leading to high rates of hunger, decreased edible food mass, reduced nutritional value, low income for farmers, and compromised food security as well as livelihoods. Successful technologies for managing food losses include proper storage, handling, and transportation, suitable packaging materials and design, proper monitoring and sensing technologies. Moreover, other approaches can be integrated, such as extension services, combining agronomy and material science, and policy frameworks supporting post-harvest management. Successful post-harvest management initiatives in Africa have identified other promising and cost-effective technologies, including hands-on training and capacity building for farmers and establishing country-level post-harvest working groups that connect researchers and other food value chain actors concerned about reducing post-harvest losses. A post-harvest loss reduction strategy should be integrated into agricultural programs in Africa in order to provide technical advice and affordable solutions to farmers.

Keywords: Food security; Post-harvest management; Post-harvest loss; Sustainable; Technology.

18 GARLIC (ALLIUM SATIVUM L.) DOWNREGULATES HER1 AND HER4 THROUGH INHIBITION OF NRF2 SIGNALLING PATHWAY LEADING TO REDUCED OVARIAN CANCER PROLIFERATION

Ibrahim Hamza Kankia, Simon Langdon and Yusuf Deeni

Corresponding author's email address: ibrahim.hamza@umyu.edu.ng

Abstract

Garlic (*Allium sativum* L.) is a natural product that has many health benefits. It has been shown to inhibit cancer cell migration and invasion in in vitro cancer cells and in vivo animal models. NRF2 and HER family regulate the normal cellular and are determinants of cancer initiation and progression. Objective: Both NRF2 and HER family are implicated in resistance of numerous cancers to chemotherapeutic agents and use of natural product could overcome the resistance. Materials and Methods: Human ovarian cancer cell lines, OVCAR3 and OVCAR4 were maintained in RPMI 1640 media supplemented with 10% foetal bovine serum (FBS) and 1% pen/strep in 5% CO₂ and incubated at 37°C. Before experimental treatments, cells were grown for 24h in RPMI 1640 media and then treated with either tert-Butylhydroquinone (tBHQ; Sigma) or garlic (Carbosynth) to a final concentration as required with media. Following this, Dual luciferase assay,

cytotoxicity assay, ROS detection, Glutathione assay and immunoblotting were performed in this study. Results and Conclusion: It demonstrated that garlic inhibited the NRF2 activity, which led to downregulation of HER1 and HER4 protein expression and decreased cell growth of OVCAR3 and OVCAR4 cells. Furthermore, inhibition of NRF2 led to increase in ROS level and depletion of total glutathione in all the cell lines. Taken together, these data suggest that garlic may inhibit the cell growth of ovarian cancer cells through NRF2-mediated downregulation of HER 1 and HER4 expression

Key words: Garlic (*Allium sativum* L.) NRF2, HER1 and HER4, Glutathione, ROS, Cytotoxicity.

19 EVALUATION OF FADAMA III PROGRAMME EFFECTIVENESS IN TERMS OF AGRICULTURAL GROWTH AND POVERTY REDUCTION IN CROSS RIVER STATE NIGERIA

Abanbeshie, Jeremiah A, Abuokwen Augustine, Adigeb, Emmanuel

Department of Continuing Education and Development Studies, University of Calabar, Nigeria

Abstract

The study was aimed at evaluation Fadama III programme effectiveness in terms of agricultural growth and poverty reduction in Cross River State. To achieve this objective two research questions were raised to guide the study. Literature were reviewed empirically and theoretically according to the sub variables of the study. The study adopted a descriptive survey design with a stratified and purposive sampling technique to select a total of 552 respondents which constitute 10% of the population. A questionnaire tagged ‘Evaluation of the impact of Fadama III Project Questionnaire (EFPQ)’ was used for data collection. The questionnaire was validated by experts in measurement and Evaluation and the reliability was established using Cronbach alpha and the coefficient of the sub scales ranged from .79-.88 which is an indication that the instrument measures consistently what it was purported to measure. Data collected were analysed using simple percentages and bar graphs and the result showed that Fadama III in Cross River State have not been effective to ensure that agricultural growth is achieved and poverty is not reduced at all. Thus, it was recommended that Fadama III project managers should ensure that beneficiaries have access to agricultural subsidies such as pesticides, herbicides, and fertilizers that can help boost agricultural growth in the state and that the state programme coordinator and monitoring and evaluation unit of the project should ensure strict compliance with the local development plan of each FUG so that expected result can help reduce poverty among beneficiaries.

Keywords: Agricultural growth, poverty, poverty reduction.

20 MICROPLASTIC POLLUTION AND ITS ASSOCIATED HEALTH RISKS

***¹Obaroh Israel, O. ²Yahaya Tajudeen, ¹Oluwale Olusegun Akiyode**

¹Department of Biological and Environmental Sciences, School of Natural and Applied Sciences, Kampala International University, Uganda,

²Department of Biological Sciences, Federal University Birnin Kebbi, Nigeria,

**Corresponding author's email address:*

israel.obaroh@kin.ac.ug

Abstract

Microplastics are minute fragments of plastic that are usually dispersed into the environment due to plastic pollution. They have a typical size range of 1 to 5 mm (0.2 inch). They are widely used in the manufacturing of a wide range of products, including textiles, skincare products, and home goods like soaps and detergents. Microplastics have become ubiquitous across the world, impacting terrestrial, air, and aquatic habitats and the animals that inhabit them. Globally, concern has been raised about the problem of microplastic pollution in aquatic habitats and its possible health risks. This article aimed to evaluate the current microplastic pollution in water bodies and its associated health risks. Thus, a critical review of published articles in the last five years was done. The review showed that microplastics are becoming major aquatic pollutants. A number of studies have detected them in edible fish, and these particles can enter the human body through biomagnification. Microplastics have been linked to a variety of effects in animals, from little disruption to significant negative outcomes, such as death. Growth retardation, hormone disruption, metabolic disorders, oxidative stress, immunotoxicity, neurotoxicity, and behavioral changes with genotoxic effects have all been related to the buildup of microplastics. Microplastics are highly persistent and cannot be broken down; they constitute a major threat to both the ecosystem and human health. Thus, this article suggests the need for non-toxic and environmental alternative sources of raw materials for the packaging and pharmaceutical industry.

Keywords: Microplastic, Aquatic, Pollution, Health Risks, And Ecosystem.

HUMANITIES, ARTS AND CULTURE

21 THE QUEST FOR RESOURCE CONTROL AND DEVELOPMENT IN NIGERIA'S FEDERALISM

Ahmed Mohammed Letswa

Department of Political Science, IBB University Lapai Niger State, Nigeria

Email address: ahmadlestwa@gmail.com

Abstract

Resource control debate The Nigerian federal system of government has been a contentious issue, threatening the corporate existence of the state. It is one of the issues being debated that determines the development trajectory across strata of the government in Nigeria. Since the beginning of the fourth republic in 1999, after over two decades of democratic federalism. Nigeria is yet to attain a reasonable level of development. This fourth republic is the longest since 1960, when Nigeria became an independent state. This paper appraises the question of resource control and its prospect for development in Nigeria. The study applies Marxian political theory. The study uses secondary data for analysis. The study argues that the ruling class engages in primitive capital accumulation through politics of identity, thereby creating a development gap. The study therefore recommends that resource control by the component units of the federal system in Nigeria with strengthening of the institutions of the state and compliance with the rule of law will guarantee faster and more sustainable development.

Keywords: Development, Federalism, Government, Resources, Demands.

22 PROJECT MANAGER'S SKILLS AND PROJECT SUCCESS OF HARGEISA WATER AGENCY WATER AGENCY IN HARGEISA DISTRICT, SOMALIA

Shafie Ali Salad

College of Humanities and Social Science, Kampala International University, Uganda

Email address: salad.shafie@studmc.kiu.ac.ug

Abstract

The study investigated the association between project managers' skills and project success using a correlation research design. Two hundred and one participants were selected, including project stakeholders, project managers and project staff, Hargeisa Water Agency staff, and project beneficiaries, through purposive and

simple random sampling. The content validity index was used to test the instrument's validity. Cronbach's alpha was employed to test the reliability of the instrument. Frequency distribution and Pearson's correlation coefficient were used to conduct the analysis. The findings of the study revealed that project managers' skills have a significant positive relationship with project success. The study concludes that a project manager's skills significantly influence project success. This investigation sheds light on the significance of project managers' skills in influencing project outcomes, thereby contributing to the enhancement of project management practices within the agency and potentially improving the efficiency and effectiveness of water-related projects in Hargeisa district, Somalia. Within the context of this finding, the study recommends that the agency should enhance the communication skills of project managers to ensure effective team coordination, stakeholder engagement, and information dissemination, which are critical for project success, by implementing training sessions that focus on improving verbal and written communication skills, active listening, and conflict resolution techniques, and conducting periodic reviews of communication practices within projects to identify gaps and areas for improvement, ensuring that project managers are maintaining consistent and clear communication.

Keywords: Project Manager, Skills, Project Success.

23 ASSESSMENT OF HEALTH INSURANCE POLICY IMPLEMENTATION IN WEST AFRICA: A CRITICAL REVIEW

Yahuza Danjuma Izom

Department of Political Science, Faculty of Management and Social Sciences

Ibrahim Badamasi Babangida University, Lapai, Niger State, Nigeria

Email address: yahuzaizom@yahoo.com

Abstract

Health care delivery in West Africa has faced significant challenges over the past four decades due to rapid population growth, making it difficult for governments to meet the critical responsibility of providing adequate health services. Various interventions have been implemented with limited progress. Health insurance policies were introduced as a potential solution, and while improvements have been made, challenges remain. This paper evaluates the implementation of health insurance policies in West Africa to propose ways to enhance their effectiveness. Secondary data from research reports were analyzed using content analysis and logical inference, with Frustration-Aggression and John Dewey's learning theories serving as the theoretical framework. The findings reveal that

despite progress in some nations, issues such as policy ambiguity, corruption, drug shortages, inefficient supply chain management, and inadequate public knowledge continue to hinder success. To address these issues, the paper recommends that governments provide clear and comprehensive information on health insurance policies to ensure citizens understand their eligibility and access to services. It also suggests that West African countries foster collaboration and knowledge exchange to learn from each other's experiences and tackle shared challenges. These measures could significantly improve the implementation and impact of health insurance policies across the region, ultimately improving the health outcomes for citizens.

Keywords: Health, Policy, Insurance, Implementation, Critical

24 UTILIZING ISLAMIC RELIGIOUS STUDIES CURRICULUM IN NIGERIAN UNIVERSITIES TO ACHIEVE 21ST CENTURY DEMANDS AND THEMES IN THE COUNTRY

Yusuph, Dauda Gambari

Department of Religions, University of Ilorin, Ilorin, Nigeria

Email address and phone number: yusuph.dg@unilorin.edu.ng

Abstract

Islamic Studies is a subject taught at various education levels in Nigeria, primarily aimed at producing religious scholars who serve in mosques or Islamic schools. The current curriculum, aligned with the country's National Policy of Education (NPE), focuses on inculcating moral and spiritual consciousness but lacks entrepreneurial skills necessary for modern society. As a result, Islamic Studies graduates are often limited to religious roles, without relevance in broader professional fields. The 21st-century demands for critical thinking, problem-solving, and global competitiveness have necessitated a review of educational curricula, including Islamic Studies. This study, through qualitative research, finds that the current curriculum fails to balance religious teachings with modern societal needs, leading to a setback in the country's development, especially considering the large Muslim population. The study emphasizes that Islamic education has the potential to address socio-political, economic, and ethical challenges in Nigeria if its curriculum is properly restructured. It recommends an all-inclusive curriculum that integrates religious and secular knowledge, enabling graduates to be problem-solvers and entrepreneurs, thus contributing more broadly to society.

Keywords: Curriculum, Islamic Studies, Worship, Morals, Demands

25 GOING GREEN WITH ALTERNATE TECHNOLOGY IN THE ERA OF FOOD SCARCITY AND UNCERTAINTY: A STUDY ON INNOVATION AND ADOPTION THEORY OF MASS COMMUNICATION

***Nwanchor Uchenna Alefia, ²Igiri Anthony Bassey, ³Jude Omaka Okoro, ⁴Anthony Obi Nku, ⁵Abu Patience, ⁶Okugo Chukwuemeka Uzoma**

Department of Mass Communication University of Calabar, Cross River State, Nigeria.

**Corresponding author's email address: unwanchor@gmail.com*

Abstract

Planetary changes are on track to see an alarming 3.2 degrees C (5.8 degrees F) warming by the end of the century. One of the resilient methodologies introduced by the Nigerian government to bulwark climate change effects inducing food scarcity is going green technology, which is geared towards ameliorating growing concerns of food scarcity and climatic uncertainties, provoking the imperativeness to adopt going green technologies and other climate-friendlier measures like hydroponic and aeroponic farming techniques. As a new innovation, the mass media are expected to diffuse information on that to the people. However, the inability to confirm inculpatory evidence of knowledge and adoption of green technology among Nigerian farmers/agroproducers accounts for the problem/incitement for the research. With the theoretical underpinning of Rogers E.M. in 1962 entitled Diffusion of Innovation Theory of Mass Communication, the methodology will involve a mixed-methods approach. The first will be descriptive survey methods adopting a four-point Likert scale format as instrumentation. The second method will be a qualitative analysis of documented materials and focus group interviews. Target population will be select farmers and agroproducers located in Abakaliki, Ebonyi State, Nigeria.

Keywords: Green Technologies, Food Scarcity, Innovation, Hydroponic, Aeroponic, Adoption.

26 BLOG AS EMERGING GLOBAL TECHNOLOGICALLY INNOVATIVE NEWS SOURCE IN CURBING COUP D' ETAT IN AFRICA: PERSPECTIVES FROM JOURNALISTIC EXPERIENCE IN NIGERIA

¹Nwanchor Uchenna, Alefia, ²Joseph, Enyia Ekpang, ³Patience Owere Ekpang, ⁴Jude Omaka Okoro, ⁵Emmanuel Mkphe Inah

¹Department of Mass Communication University of Calabar, Nigeria,

**Corresponding author's email address and phone number: unwanchor@gmail.com +2348064257405, ²Department of Journalism and Media Studies, College of Humanities and*

Social Sciences, Kampala International University, Uganda
enyia.ekpang@kiu.ac.ug +2348080863736

³*Department of Information Technology, School of Mathematics and Computing, Kampala International University, Uganda*
patience.ekpang@kiu.ac.ug

⁴*Department of Mass Communication, University of Calabar Nigeria.* jude.xokoro@yahoo.co.uk +2348069200309

⁵*Department of Political and Administrative Studies, College of Humanities and Social Sciences, Kampala International University, Uganda.*
inah.emmanuel@kiu.ac.ug

Abstract

Professionally, sources are pivotal aspects of journalism practice in news gathering and reporting aimed at deliberately shaping and reshaping opinions on global, continental, national, or local issues, especially on coup d'état. Professionally trained journalists worth their onions rely heavily on varied available news sources to obtain information and construct stories that could change the old narratives. This is because it adds credibility and believability and ensures accuracy in news stories, especially in relation to coup d'état in Africa. Mohmoud and Mohmoud (2023) observe that, over the last three years, the African Sahel region has witnessed a wave of coup d'état in seven countries. The study, therefore, examines the extent to which mainstream journalists' source for news is local weblogs in their daily news transactions with the aim of curbing the menace of coup d'état in Africa. Uses and Gratification was considered a suitable theory for this paper. A descriptive survey method was adopted in the research with a sample size of 32 professional journalists drawn from the correspondent's chapel of the Nigerian Union of Journalists, Cross River State Chapter. Findings reveal that mainstream journalists have effectively and deliberately keyed into the powers and potentialities of weblogs as one of the major news sources in gathering information that could help mitigate or totally eradicate rising cases of coup d'état in Africa in recent times.

Keywords: Coup D'etat, Blogs, Journalism, Africa, Technology, Source, News

27 INFLUENCE OF TEACHERS' AND STUDENTS' ASSESSMENT OF SERVICE COMPACT (SERVICOM) ON SERVICE DELIVERY IN SECONDARY SCHOOLS IN ABUJA

Okojie, Monday Ujiakhien

*Department of Social Studies, FCT College of Education
Zuba, ABUJA*

Email address and phone number: okojiemon@yahoo.com

Abstract:

This study investigated the impact of service compact on service delivery in secondary schools in Abuja's Federal

Capital Territory. Using a survey research method, the researcher sampled three area councils and six secondary schools from a population of 58 schools, 10,718 students, and 2,899 teachers. The sample included 120 teachers and 450 students from SSS III, with data collected via a 30-item questionnaire. Mean scores addressed research questions, while Chi-square tests evaluated hypotheses. Findings revealed several issues: delays in teachers' salaries and promotions, lack of communication from principals, gaps in communication among school managers, teachers' inadequacy in creating teaching materials, and students' inability to address service failures due to limited knowledge of SERVICOM. Based on these results, the researcher recommended timely payment of salaries and allowances, improved communication from principals, the establishment of SERVICOM desk officers in all secondary schools, and the incorporation of SERVICOM into the Social Studies curriculum.

Keywords: Communication Gap; Federal Capital Territory; Motivation; Service Compact.

28 ASSESSING THE EFFECTS OF ONLINE EDUCATIONAL TECHNOLOGY UTILISATION ON ACADEMIC INTEGRITY IN TERTIARY INSTITUTIONS: A STUDY OF THE NATIONAL OPEN UNIVERSITY OF NIGERIA (NOUN)

***Jacob Eneji Ashibi, ²Patience Onyangbe Ashibi**

*¹Department of Development, Peace & Conflict Studies
Kampala International University, Uganda *Corresponding
author's email address: jacob.ashibi@kiu.ac.ug; eashibi@noun.edu.ng*

*²Department of Educational Administration & Planning
Kampala International University, Uganda
patience.ashibi@kiu.ac.ug*

Abstract

This study investigates the impact of Online Educational Technologies (OET) on academic integrity in Nigerian online tertiary institutions, focusing on the National Open University of Nigeria (NOUN). While OET enhances accessibility, flexibility, and personalized learning, concerns about its effect on academic integrity persist. Using a mixed-methods approach, quantitative data were collected through questionnaires from 384 students, and qualitative data were gathered via interviews with 18 staff members. The findings reveal that limited access to digital devices, internet disruptions, poor digital literacy, and low staff commitment are key challenges. Despite these issues, OET has reduced academic misconduct and strengthened quality assurance in teaching and learning at NOUN. The study recommends providing tailored digital devices, ICT capacity building for staff and students, improved internet speed, and better staff motivation to boost commitment and learning outcomes.

Keywords: Online Educational Technology, Academic Integrity, Academic Misconduct.

Katsina-Nigeria

Email address:

saijullahi.lawal@ksitm.edu.ng

29 RELEVANCE OF CAPITAL MARKET LITERACY TO THE ACADEMIC STAFF OF FEDERAL COLLEGE OF EDUCATION KATSINA, KATSINA STATE, NIGERIA

^{*1}Musa Shuaibu Rafin Dadi, ²Muhammad Musa Tsagem, ³Ibrahim Usman K.

¹Department of Social Science & Humanity, Federal College of Education Katsina, Katsina State, Nigeria

*Corresponding author's email address and phone number:

shuaibu.rafindadi@fcekatsina.edu.ng +234 8028844447.

²Department of Business Education, Federal College of Education Katsina, Katsina State, Nigeria ³Department of Social Science & Humanity Federal College of Education Katsina, Katsina State, Nigeria
usman.kibrahim@fcekatsina.edu.ng

Abstract

The paper examined the financial benefits and challenges associated with the involvement of academic staff in capital market activities, emphasizing the role of financial literacy, investment opportunities, and wealth creation. The paper also provided insight into how academic staff can explore the capital market landscape and financial contributions to their socioeconomic well-being. The paper was quantitatively designed in order to have wider respondents. The instrument for data collection was a closed-ended questionnaire. A random sample technique was employed, aided by the College of Education Academic Staff Union (COEASU) WhatsApp platform. 200 academic staff (representing 54% out of 365 academic staff) was involved for convenience. The data was collected through the use of Google Forms and transferred to Excel for analysis. The findings revealed that most of the academic staff were participating in the Nigerian Stock Exchange Market (NSE) but not in other instruments like Central Bank Securities, and some were ignorant about the activities of the capital market, and some were not participating due to the risks involved. Lastly, it was recommended that academic staff should participate in capital market activities for sustainable economic empowerment and wealth creation.

Keywords: Capital Market, Literacy, Academic Staff.

30 MICROFINANCE AND POVERTY ALLEVIATION: COLLABORATIVE STRATEGY FOR SUSTAINABLE DEVELOPMENT IN RURAL AFRICA

Saifullahi Lawal

Katsina State Institute of Technology and Management,

Abstract

Microfinance initiatives have emerged as a pivotal strategy in addressing poverty in rural Africa, offering financial services to marginalized communities traditionally excluded from formal banking systems. This paper explores the collaborative approach to microfinance and its role in sustainable development, focusing on its impact on poverty alleviation in rural African contexts. By leveraging partnerships between local communities, governmental bodies, non-governmental organizations (NGOs), and financial institutions, microfinance programs foster economic empowerment through accessible credit, savings mechanisms, and financial literacy education. These initiatives not only provide crucial capital for small businesses but also contribute to enhancing livelihoods, reducing vulnerability, and promoting social inclusion among rural populations. Case studies from various African countries illustrate successful models of collaborative microfinance strategies, highlighting their effectiveness in fostering entrepreneurship, improving household incomes, and enhancing overall community resilience. However, challenges such as limited scalability, regulatory constraints, and gender disparities remain significant barriers to achieving sustainable impact. Addressing these challenges requires a multifaceted approach that integrates policy support, technological innovation, and community engagement. In conclusion, while microfinance has demonstrated its potential in poverty alleviation, a collaborative strategy that integrates diverse stakeholders and addresses systemic barriers is essential for achieving sustainable development goals in rural Africa.

Keywords: Microfinance, Poverty Alleviation, Sustainable Development, Rural Africa.

31 EXAMINING THE RELATIONSHIP BETWEEN KAINJI DAM AND THE SOCIO-ECONOMIC DEVELOPMENT OF BORGU LOCAL GOVERNMENT AREA OF NIGER STATE-NIGERIA

Suleiman Mohammed Evuti

Department of History and International Studies

Ibrahim Badamasi Babangida University Lapai, Niger State-Nigeria

Email address: smevuti@ibbu.edu.ng & smevuti87@gmail.com

Abstract

The Kainji Dam, completed in 1968, is a major hydroelectric power source and a driver of socio-economic change in the Borgu Local Government Area, Niger

State, Nigeria. This research explores the dam's role in the socio-economic development of Borgu, examining its contributions to infrastructure, employment, and economic activities. The study analyzes the dam's impact on local communities, focusing on benefits such as hydropower, water supply for livestock and fisheries, and potential irrigation for agriculture. However, despite these benefits, infrastructural development spurred by the dam has not substantially improved economic growth in the region. Using a qualitative approach, the study employs primary and secondary data, including interviews with residents, officials, and dam personnel. It evaluates both the achievements and challenges faced by the Borgu community, particularly in the informal sector, while also assessing stakeholder perspectives. The research concludes that while Kainji Dam has spurred some positive socio-economic changes, its overall impact on sustainable growth in Borgu remains limited.

Keywords: Socio-Economy, Development, Dams , Economic Growth.

32 THE GREAT ACADEMIC EXODUS: UNVEILING THE IMPACT OF WORKING CONDITIONS CRISIS ON BRAIN DRAIN IN NIGERIAN UNIVERSITIES

¹Odey Clarence Odey, ²Chikodiri Nwangwu, ³Celestine Ochu Udeh

¹Department of Social Science Education University of Calabar, Nigeria

*Corresponding author's email address: odeyclare@unical.edu.ng, + 2347060721477, ²Centre for Africa-China Studies University of Johannesburg, South Africa, Cnnwangwu@uj.ac.za, ³Department of Political Science, University of Nigeria, Nsukka, Udehcelestine555@gmail.com,

Abstract

The study examines the severe brain drain among lecturers in Nigerian universities, focusing on how poor working conditions have contributed to this issue. The research is based on the ongoing disputes between the Federal Government of Nigeria (FGN) and the Academic Staff Union of Universities (ASUU). Using the human capital flight theory, the study employed a time series research design, combining survey and documentary data collection methods. The population included ASUU members, student leaders, university management staff, and federal civil servants. Data were gathered through key informant interviews and focus group discussions with 30 lecturers, 60 students, and 10 civil servants across three selected federal universities. Findings reveal that the root causes of brain drain are inadequate salaries, delayed payments of earned academic allowances, and lack of fringe benefits. The 2009 FGN-ASUU Agreement, intended to address these

issues, failed to bring significant improvements. The study recommends renegotiating the 2009 Agreement to mitigate the brain drain crisis and improve university sustainability.

Keywords: ASUU, Brain Drain, Dispute, FGN, University, Working Condition.

33 PEDAGOGICAL APPROACHES TO ARTIFICIAL INTELLIGENCE IN PRIMARY EDUCATION: CURRICULUM DEVELOPMENT FOR FOSTERING ENTREPRENEURIAL ACUMEN IN NIGERIA

Kelechi Ugwu T.

Department of Social Science and Humanities
Institute of Management and Technology, Enugu, Nigeria,
Email address: kcugwu@imt.edu.ng

Abstract

This study investigates the pedagogical integration of artificial intelligence (AI) in primary education, with a focus on curriculum development aimed at enhancing entrepreneurial acumen in the developing world. A diverse sample of 235 students participated, including an equal gender distribution, a wide age range (6-12 years), varied socioeconomic backgrounds (30% low-income, 40% middle-income, 30% high-income), and different geographic locations (50% urban, 30% semi-urban, 20% rural). The mixed-methods research approach revealed that the AI-enhanced curriculum significantly improved students' problem-solving, critical thinking, and entrepreneurial skills. The adaptability and student-centered nature of the curriculum were key in creating an innovative and self-directed learning environment. These findings highlight AI's potential as a transformative educational tool, especially in resource-constrained settings, and suggest a promising direction for future educational models in sync with the dynamic global economy.

Keywords: Artificial Intelligence, Primary Education, Curriculum, Entrepreneurial Skills.

34 THE EFFECT OF INFORMATION SYSTEMS, AND TECHNOLOGY ON CHILD PROTECTION INTERVENTIONS IN SUB-SAHARAN AFRICA: A REVIEW

¹Peace Byamukama Natukunda, ²Kabir Bello, ²Roseline Onego

¹Department of Political and Administrative Studies College of Humanities and Social Sciences Kampala International University P.O Box 20000 Kampala, Uganda,

*Corresponding author's email address:

peace.natukunda@kiu.ac.ug,

²Department of Political and Administrative Studies College

Abstract

The study examines the impact of Information System Technologies (IST), such as 4G, WIFI, smartphones, social media, tablets, and computer applications, on child protection interventions in Sub-Saharan Africa. It highlights how digital governance and technological integration (GovTech) have transformed service delivery. Using a review of selected articles, the study finds that IST supports child protection workers by enabling efficient data collection, mapping of violence, tracing, birth registration, and case management. However, children face multiple online risks, including exposure to harmful content, cyberbullying, harassment, misuse of personal data, and child sexual abuse. The study concludes that while IST offers significant opportunities for child protection, it also introduces substantial risks. Therefore, strategies must be developed to ensure children's safe access to digital technologies in a secure online environment.

Keywords: Information Systems, Technology, Child Protection, Interventions, Strategies.

35 COGNITIVE RESTRUCTURING TECHNIQUE ON STUDENT SELF EFFICACY BELIEF IN MATHEMATICS AMONG SENIOR SECONDARY SCHOOL STUDENTS

¹Agnes Ijeoma Ononaiwu

¹Department of Counselling Psychology Faculty of Education and Arts, Ibrahim Badamasi Babangida University, Lapai, Niger State, Nigeria.

**Corresponding author's email address:
aiononaiwu@ibbu.edu.ng*

Abstract

The study investigates the impact of the cognitive restructuring technique on the self-efficacy beliefs of male and female senior secondary students in Lagos State and its effect on mathematics achievement. Previous research primarily focused on teaching methods, overlooking students' affective components like self-efficacy. This quasi-experimental study used a non-equivalent control group design with one treatment and one control group. Three coeducational secondary schools from Lagos State's mainland educational district were selected, and 207 mathematics students were sampled. The schools were randomly assigned to treatment and control groups. Data were collected using the Mathematics Self-Efficacy Scales (MSES) for pre-test and post-test assessments, and analyzed using mean scores, standard deviation, and ANCOVA. Findings reveal that the cognitive restructuring technique significantly improves students' self-efficacy,

positively influencing their performance and making them independent learners. The study recommends that teachers implement and model the strategy to help students develop a positive attitude and achieve higher mathematics performance.

Keywords: Cognitive, Restructuring, Self-Efficacy Belief.

36 CLIMATE CHANGE, RESOURCE CONFLICT IN NIGERIA AND THE IMMIGRATION PROBLEM FOR THE REST OF THE WORLD

Fatima Mohammed Alkali

Ibrahim Badamasi Babangida University, Lapai, Niger State,
Nigeria.

Email address: Fatima.alkali@ibbu.edu.ng,

Abstract

This study explores the impact of climate change on resource conflict in Nigeria and the subsequent immigration problems for the rest of the world. Climate change-induced desertification in Northern Nigeria forces nomadic herdsman southward in search of pasture, leading to conflicts with farmers. These conflicts have escalated over the past decade, often surpassing the security threat posed by Boko Haram, resulting in significant socio-economic and political instability in Nigeria. Previous studies have inadequately addressed the internal economic and political conditions exacerbating this conflict, often relying on the frustration-aggression theory, which falls short of explaining the conflict's dynamics. This research fills these gaps by employing a mixed-method approach, combining primary and secondary data from diverse sources and incorporating surveys and interviews with herdsman, farmers, and migrants. The study also analyzes time-series data and critically examines 50 of the most fatal incidents in recent years. By doing so, it identifies the political and economic factors contributing to rising violence and evaluates the broader implications for global migration. The findings highlight the dire consequences of the conflict, including loss of life, property, and jobs, increased food scarcity and prices, and the potential for civil war, which collectively drive significant migration from Nigeria to Europe, Asia, and North America.

Keywords: Climate Change, Resource Conflict, Immigration, Civil War, Nigeria.

37 COUNSELLING FOR SAFETY AND ECONOMIC STABILITY AMONG FEMALE STUDENTS IN NIGERIAN SCHOOLS: A ROADMAP TO NATIONAL SECURITY

¹Muhammad, Hadiza Machima, ²Abdulkadir,
Abdulkarim Olatunji

¹Department of Counselling Psychology, Faculty of Education,
Ibrahim Badamasi Babangida University Lapai, Niger State

*Corresponding author's email address:

hadizagmachima01@gmail.com +2348069647527

²Department of Psychology/ Guidance and Counselling,
School of Education, Federal College of Education (Technical)
Potiskum, Yobe, Nigeria

Email address: kisfak23@gmail.com.

Abstract

This paper focused on counseling for safety and economic stability among female students in Nigerian schools: a roadmap to national security. The paper explored the intricate relationship between safety, economic stability, and education for female students within the context of Nigerian schools. It underscores the significance of implementing effective counseling strategies as a means to address the multifaceted challenges faced by female students, including issues of safety and economic instability. The paper advocates for a comprehensive roadmap that amalgamates counseling services, educational reforms, and policy recommendations to augment the safety, economic opportunities, and overall well-being of female students. By empowering this demographic, the paper posits that Nigeria can not only enhance individual lives but also contribute significantly to national security, fostering a more stable, inclusive, and prosperous society. This paper was hinged on human security theory, which was propounded by the United Nations Development Programme (UNDP). The Human Security Theory represents a paradigm shift in understanding security, emphasizing the well-being and empowerment of individuals as the primary focus. In conclusion, the empowerment of female students in Nigerian schools through counseling for safety and economic stability is not only a pathway to personal growth but also a roadmap to national security. By embracing this holistic approach, Nigeria can harness the untapped potential of its female population, creating a secure and prosperous future built upon the foundations of equality, empowerment, and collective well-being.

Keywords: Counselling for Safety and Economic Stability, Female Students, National Security.

38 BRIDGING THE DIGITAL DIVIDE: ASSESSING THE EFFECTIVENESS OF MOBILE LIBRARY APPLICATIONS IN PROVIDING REMOTE ACCESS TO INFORMATION

Ogagaoghene Uzezi Idhalama

Kampala International University Western Campus, Ishaka,
Uganda.

Email address and phone number: uzezi.Idhalama@kiu.ac.ug;

idhalamao@gmail.com

Abstract:

The digital divide—disparities in access to digital technologies—remains a critical issue, worsened by the COVID-19 pandemic. This study explores how mobile library applications can bridge this gap by providing remote access to digital resources for underserved populations. It aims to evaluate the accessibility and usability of mobile library apps, their impact on information access and knowledge sharing, and their role in lifelong learning for marginalized communities. Using a literature review methodology, the study analyzed research, case studies, and industry reports from databases like Google Scholar, Scopus, and Web of Science. Findings reveal that mobile library apps can promote digital inclusion and enhance access to educational resources, particularly in remote areas. However, challenges such as usability, digital literacy, and infrastructure limitations hinder adoption. The study recommends strategies and policies to integrate mobile library technologies into local and regional information ecosystems, thus reducing the digital divide and empowering communities worldwide.

Keywords: Digital Divide, Mobile Library Applications, Remote Access, Information Access.

39 ROLE OF SOCIAL MEDIA PLATFORMS IN THE SPREAD OF FAKE NEWS AND ITS IMPLICATIONS FOR INFORMATION LITERACY

^{*1}Ogagaoghene Uzezi Idhalama, ²Brianna
Bernadette Buljung

¹Kampala International University Western Campus, Ishaka
Uganda,

*Corresponding author's email address:

uzezi.idhalama@kiu.ac.ug; idhalamao@gmail.com,

²Associate Library Faculty Arthur Lakes Library, Colorado
School of Mines 1400 Illinois St. Golden, CO 80401, USA.

bbuljung@mines.edu, 303-3689

Abstract

The goal of this study is to present a thorough analysis of the literature on the spread of false information via social media platforms and the ensuing effects on information literacy. The study looks into the precise processes by which false information propagates on social media and considers the possible effects it may have on people's capacity to assess and validate information. This review highlights the level of fake news prevalent on different social media platforms, how social media platforms contribute to the dissemination of fake news, and analyzes the impact of fake news on individuals' information literacy. Other sections of the review will capture the effectiveness of fact-checking

initiatives and tools in reducing the spread of fake news on social media, explore the potential consequences of fake news on democratic processes and public opinion, and finally propose recommendations and guidelines for improving information literacy skills to navigate the era of social media and fake news. By shedding light on the complex interplay between social media platforms, the spread of fake news, and information literacy, the results of this literature review will help stakeholders create strategies that effectively counter the spread of false information and foster critical thinking in the digital age.

Keywords: Social Media, Social Media Platforms, Fake News, Misinformation, Information Literacy.

40 THE DYNAMICS OF KIDNAPPING OF AND FOOD SECURITY THREAT IN NORTH-WEST NIGERIA

Mohammed Bello Baban'umma

*Nasarawa State University, Faculty of Social Sciences
Department of Political Science, Email address and phone
number: muhammedbello2244@gmail.com*

Abstract:

In Northwest Nigeria, particularly in Zamfara, Katsina, and Sokoto States, the dynamics of kidnapping have escalated, posing significant threats to food security. The rampant activities of kidnappers have resulted in severe consequences, including disfigurement, loss of life, farmland sales to pay ransoms, population displacement, and disruptions to socio-economic activities. This situation presents substantial challenges for both the government and citizens. This paper explores the relationship between kidnapping and food security in the region, employing Queer Ladder Theory and relying on secondary data sources. The findings indicate that the fear of kidnapping has forced farmers to abandon their farms, leading to a decrease in food availability, affordability, and accessibility, making it difficult for citizens to secure three meals a day. Additionally, the expansive Rugu Forest offers refuge for kidnappers, compounded by issues such as poverty, high unemployment, a weak judicial system, corruption within security forces, porous borders, and arms proliferation. The paper recommends a dual approach for combating kidnapping, incorporating local knowledge with state security forces, alongside non-kinetic strategies to alleviate poverty through empowerment programs, education, awareness campaigns, and improved governance. Without significant government intervention, the fight against kidnapping may remain ineffective.

Keywords: Food Security, Kidnapping, Security Threats, Ransom.

41 WHAT LEADS TO THE FEAR OF PUBLIC SPEAKING

Amina Nasir Baba

Federal Polytechnic Kobo, Kano Nigeria.

Email address: aminanasirbaba@gmail.com

Abstract

Fear of public speaking is a prevalent issue among English language learners, often leading to communication breakdowns. This essential skill has become increasingly important in today's educational environment, yet anxiety makes it challenging for students. Many believe that delivering a speech requires strong willpower and confidence, underscoring the need to address these fears before entering professional life. This paper utilizes social cognitive theory to explore the factors contributing to the fear of public speaking and strategies for overcoming it among primary school students in Kano State. The study focuses on Primary Four and Five students at Cairo Comprehensive Model School in Nasarawa Local Government, comprising a sample of 36 students selected according to Morgan & Krejcie's (1970) sample size determination table. Data were collected using a questionnaire. Findings indicate that lack of confidence and fear of ridicule are significant contributors to public speaking anxiety among the students. The research also highlights that encouragement from teachers and regular practice are effective strategies for mitigating this fear. Addressing these issues can help students develop their public speaking abilities, improving their overall communication skills.

Keywords: Public Speaking, Fear, Communication Breakdown, Social Cognitive Theory.

42 DEMOCRATIZATION AND ELECTORAL IRREGULARITIES IN NIGERIA: A REVIEW OF THE 2015-2019 GENERAL ELECTIONS

¹Enu, Donald Bette, ²Odey, Clarence Odey

**College of Education, Open Distance & E-Learning
Kampala International University, Uganda, ²Department of
Social Science Education University Of Calabar, Nigeria,*

**Corresponding author's email address: [donald.Enu@Kiu.
Ac.Ug](mailto:donald.Enu@Kiu.Ac.Ug), Odeyclare@gmail.com*

Abstract:

African states were formed by imperial powers through a challenging process of colonialism. The end of colonial rule led to a transfer of power to local elites, who often prioritized their interests over the social, economic, and human development of their nations. This self-serving political orientation turned elections into high-stakes contests, resulting in widespread electoral irregularities such as vote-buying and ballot box snatching, undermining democratic principles. This paper examines

Nigeria's electoral process, particularly focusing on the 2015 and 2019 general elections conducted by the Independent National Electoral Commission (INEC). The study was guided by a hypothesis and employed a survey design, with a population of 260 INEC officials and ad hoc staff, primarily lecturers from the University of Calabar and the Cross River State University involved in the elections. Data were collected through structured questionnaires and analyzed using inferential statistics. Findings revealed that Nigeria's electoral regulatory framework is inadequate, as electoral fraud perpetrators often evade punishment. To address these issues, the paper recommends implementing a complete electronic voting system, aligning with global best practices to enhance the integrity of the electoral process.

Keywords: African States, Colonialism, Electoral Irregularities, Nigeria.

43 THE ROLE OF DIALOGUE IN CONFLICT RESOLUTION: LESSONS FROM MATTHEW 18:15-20 FOR NIGERIA

^{*1}Etta Robert Bikom, ²Ategwu Patrick Ogar, ³Bebia Joseph O

¹Department of Religions and Cultural Studies, University of Calabar,

²Department of Educational Management, University of Calabar,

³Department of Psychology and Sociological Studies, Ebonyi state university Abakiliki,

*Corresponding author's email address: bobetta@unical.edu.ng, ogarpatrickategwu@unical.edu.ng, jobbii09@gmail.com

Abstract

This study examines the role of dialogue in conflict resolution: lessons from Matthew 18:15–20 for Nigeria. It has been noticed globally and in Nigeria, particularly the growing interest in the potentials for the use of dialogue as a tool for solving some of the worst crises known to humankind, collectively and individually, from warfare to bitter breakups of close and personal relationships. This work undertook a study of the process outlined in Matthew 15:8–20. It adopted the qualitative method of research, which involves the method of literature as well as an exegetical analysis of the periscope under study. Burton and Galtung's theories of conflict resolution and Yankelovich's model of dialogue were also employed. The work concluded that while conflicts are an inevitable part of human society that should be expected and accepted whenever they occur, dialogue is an indispensable tool for resolving these conflicts. It recommends that dialogue should be recognized as a method for resolving conflicts in Nigeria and that religious bodies should be incorporated in various efforts to solve the many conflicts in our nation.

Keywords: Conflict, Resolution, Dialogue, And Religious Bodies.

44 ETHNIC POLITICS AND THE AGITATION FOR RESTRUCTURING IN NIGERIA, IMPLICATION FOR NATIONAL DEVELOPMENT, DIALOGUE INITIATIVE AND INTERVENTION BY SDGS

Lynne Oti Ukpai

Department of Sociology, Faculty of Social Science University of Calabar

Email address and phone number: lynnegiril001@gmail.com, +2348053166661

Abstract:

This study examines ethnic politics and the agitation for restructuring in Nigeria, implication for national development, dialogue initiative, and intervention by SDGS. Nigeria is an independent state that is truly not completely independent because of the various agitations for regionalism. In Nigeria, ethnic politics is not a new phenomenon. It has been the pattern of selection of leaders from the inception with our colonial rulers and the establishment of colonial states. There have been quite a number of ethnic and religious movements that depict the urge to centralize resources because of a group of ethnic regions that were widely marginalized over time. Therefore, the study basically looks at regionalism as a factor for development and dialogue for peaceful initiative and SDGS intervention, which will propel development and be seen as catalysts for peace and integration into integrational harmony.

Keywords: ethnic politics, agitation for restructuring, national development, SDGS intervention.

45 MODERATING INFLUENCE OF ENVIRONMENTAL HOSTILITY AND EXTERNAL RELATIONAL CAPITAL ON ENTREPRENEURIAL ORIENTATION

Peter, Nelson Ugbedeajo

Department of Business Administration, Kogi State University, Anyigba.

Email address and phone number: ugbedeajonelsonpeter@gmail.com;

Abstract

Despite the significant progress and knowledge gained in entrepreneurship orientation (EO) research, there is still much to be understood regarding how environmental factors impact organizational processes and determine the level of success achieved. A study was conducted to examine a model that suggests that external relational capital and environmental hostility play a moderating role in the relationship between EO and performance among 423 managers/owners of small and medium-sized

enterprises. Through Hayes simultaneous regression analysis, the hypotheses were tested, revealing that all dimensions of EO (risk-taking, innovation, and performance) had a direct effect on performance. The moderating variables were found to interact particularly well with risk-taking, enhancing performance more than the other EO dimensions. Notably, external relational capital was shown to exert a greater influence on the EO-performance relationship compared to environmental hostility. These findings highlight the varied ways in which EO dimensions interact with environmental factors to affect performance. Future research could explore how competitive aggressiveness and autonomy are influenced by external relational capital and environmental hostility.

Keywords: external relational capital, entrepreneurial orientation, risk-taking, innovation.

46 POLITICAL EDUCATION: VEHICLE FOR PEACE, SECURITY, NATIONAL DEVELOPMENT AND TRANSFORMATION

Eje Benjamin Oda

Department Of Political Science Ebonyi State College of Education, Ikwo, Nigeria,

Email address and phone number: odaaje@gmail.com,

Abstract

Political education is not only a significant theme for an enduring democratic culture, lasting peace, and security but equally quintessential for national development and transformation. Generally, it is perceived as a means of raising political and social consciousness in the country. It is equally an instrument for infusing in the citizenry a sense of love, integrity, loyalty, and obedience to the state, which enable them to discharge not only their corporate responsibilities but, equally, enables them to see their fellow citizens as human beings and strives not to divide but to cooperate, unite, and make maximum sacrifices for the survival and development of the individual, particularly and the country in general. Political education plays a remarkable and significant role in our national development through the interpretation of laws, the maintenance of the existing political structures and institutions, participation in decision-making, molding of ideas, and the enthronement of enduring ideas and capacity in nation-building. This work examined in detail the concept of politics, political education, and the importance of political education. It equally has some tentative recommendations, which include the need for the introduction of political education as a subject in postprimary schools to further enhance peace, security, and national development in the country.

Keywords: Politics, Education, Peace, Security, National, Development, Transformation.

47 INFORMATION AND COMMUNICATIONS TECHNOLOGY (ICT): A CONDITIO SINE QUA NON FOR EFFECTIVE EDUCATION IN THE 21ST CENTURY AFRICA

¹Elias Ifeanyi E. Uzoigwe, ²Amara Mary Chukwuma-Offor

¹Department of Philosophy, University of Calabar, Nigeria,

²Department of Religion and Human Relations Nnamdi Azikiwe University, Awka, Nigeria,

**Corresponding author's email address and phone number:*

*fruzoigwe@gmail.com, eliasuzoigwe@unical.edu.ng
ORCID 0000-0002-3809-7114; +2348038268449,
amarachukwumaoffor@gmail.com; amchukwumaoffor@unizik.edu.ng ORCID 0009-0003-4423-8029; +2348064622205*

Abstract

This study emphasizes that for education in Africa to progress in the 21st century, the integration of information and communications technology (ICT) is essential. Education is recognized as a vital and lucrative sector, and the use of ICT tools—such as computers, smartphones, projectors, WhatsApp, Facebook, and email—has significantly improved teaching and learning processes. These technologies help solve complex educational issues, including course allocation, timetable construction, examination administration, and student performance assessment. Using critical analysis, the study argues that acquiring ICT knowledge through teacher education and professional development for educators, stakeholders, and students is crucial for effective education in Africa. The research advocates for the complete adoption of techno-teaching and learning materials and the involvement of ICT experts to enhance educational practices. With individuals now carrying numerous e-books on electronic devices, it is evident that times have changed. For Africa to effectively tackle its challenges and transform its educational landscape, it is indispensable to improve education through technological advancements by promoting ICT knowledge across various learning institutions.

Keywords: Africa, Education, ICT, Institutions of Learning, Techno-Teaching-And-Learning.

48 INFORMATION LITERACY IN THE AGE OF INFORMATION OVERLOAD: A CASE STUDY OF BAYERO UNIVERSITY LIBRARY, KANO

¹Hauwa'u Shitu Abdullahi, ²Jamila Usman, ³Habib Shehu

¹ & ² Bayero University Library, Kano, Nigeria ³ Management Information Systems, Kampala International University,

Uganda. 0009-0000-4464-7074, 0009-0001-7247-8463,
0009-0000-4464-7074, *Corresponding author's email
address: habib.shehu@studmc.kiu.ac.ug

Abstract

In this study, students studying science at Bayero University Kano examine the connections between the application of information resources and information literacy skills and competencies. Even with the quick increase of knowledge available, many pupils still struggle to find, assess, and use it efficiently. By investigating the factors that affect these competencies and their relationship to academic achievement, the study seeks to close a research gap. The empirical investigation uses a design based on correlation with a method of quantitative investigation to look into the state of information literacy among science students. An accurate representation of undergraduate and graduate students from a variety of science departments was chosen using stratified sampling. Questionnaires were used to gather data, and 95.7% of respondents answered completely. Results indicate that despite students having a basic knowledge of information literacy, they still require more practice in more complex areas such as database searching and information appraisal. The research aids in the creation of focused information literacy initiatives catered to the requirements of scientific students.

Keywords: Academic Libraries, Bayero University Library, Digital Literacy, Information Literacy.

49 BRIDGING THE KNOWLEDGE GAP: THE ROLE OF ICT IN SOUTH-SOUTH NIGERIAN UNIVERSITY LIBRARIES

¹Habib Shehu, ²Victoria Ale, ³Okechukwu Obadijah, ⁴Isa Ismail Ibrahim

¹Department of Information Technology & Systems, School of Mathematics & Computing, Kampala International University, Uganda, ^{2&3}Department of Library & Information Science, Faculty of Information Technology, Federal Polytechnic Nasarawa, Nigeria, ⁴Department of Library & Information Science, Kulliyah of Information & Communication Technology, International Islamic University, Gombak Selangor, Malaysia

*Corresponding author's email address and phone number:

habib.shehu@studmc.kiu.ac.ug

Abstract

Unequal access to knowledge resources impedes student achievement in South-South Nigerian universities. This study explores how information and communication technologies (ICT) can bridge this gap by enhancing knowledge sharing within university libraries. Employing a descriptive survey design, the research targeted postgraduate students (n = 676), selected through random sampling from the 2023–2024 academic session population. Questionnaires were used to gather data

on ICT resource availability, utilization, and perceived benefits for knowledge sharing. The findings revealed that while libraries offer ICT resources like databases, online learning platforms, and collaboration tools, utilization remains low. However, the study identified significant benefits associated with ICT: improved access to current information, facilitated knowledge exchange among students and faculty, and enhanced collaboration on complex research problems. The research also identifies factors hindering knowledge sharing and proposes recommendations to optimize ICT use for improved knowledge exchange in these libraries.

Keywords: Information Communication Technology, Knowledge Sharing, University, Libraries.

50 EXPLORING THE GAINS AND BURDEN OF HIGHER EDUCATION IN NIGERIA

Jones Michael Jaja

Department of History and International Diplomacy
State University, Port Harcourt

Abstract

One of the most enduring legacies parents and the country can pass on to its youth is education. Indeed, education is the fabric of any culture; with it, culture is transmitted, thought is conceptualized, and information is transmitted. It is hardly inconceivable to envisage a learning process without education, in this case, higher education. For instance, how and where would a professor transmit his knowledge to students? How can the innermost recesses of a teacher be tapped by students? Any serious response to these questions may probably x-ray the importance of higher education and its contributions to the educational system in Nigeria. The challenges, politics, and benefits of higher education. This paper recognizes the benefits of higher education and the challenges faced in attempting to provide higher education. It notes that the government alone cannot provide the resources needed to provide qualitative higher education and advocates for other sources of dealing with these challenges.

Keywords: higher education, teachers, students, gains and burdens.

51 GENDER INEQUALITY: UGANDA'S CONSTITUTIONAL AND STATUTORY RECTIFICATION OF THE INEQUALITY APPREHENSION AND THE STRENGTHENING OF EQUALITY OF SEXES

Akwagiobe, Richard Akpanke

School of Law, Kampala International University

*Email address and phone number:

Abstract

Traditionally, informal institutions like religion and cultural practices have been seen as key contributors to gender inequality in economic and leadership roles in Uganda and across Africa, often creating advantages and disadvantages for both genders. The introduction of the Millennium Development Goals (MDGs) and Sustainable Development Goals (SDGs) intensified gender equality efforts. Uganda has made significant progress through its 1995 Constitution and other legislative frameworks, achieving SDG targets for women's economic and leadership roles, at times disadvantaging men. While laws addressing discrimination against women have been actively pursued and corrected, discrimination against men has not received similar attention. Using doctrinal methodology to assess Uganda's legal framework—including constitutional provisions, statutes, and case laws—this paper argues that Uganda has established equal opportunities for both genders, sometimes to the detriment of men. The study concludes that economic and political gender imbalances have been significantly addressed through formal legal reforms, creating equality of opportunity. However, existing gender gaps do not necessarily indicate inequality. The paper commends Uganda's legislative model and recommends it as a benchmark for other African nations.

Keywords: gender inequality, gender gaps, sustainable development goals.

52 THE IMPACT OF ICT IN POLITICS AND ITS EFFECT VOTING BEHAVIOR OF CITIZEN IN NIGERIA: KABO METROPOLIS AS A CASE STUDY

Abdullahi Tahir

*Department of Computer Science Federal Polytechnic Kabo,
Kano State, Nigeria*

Email address: abdullahitahir3@gmail.com.

Abstract

The study titled "The Impact of ICT in Politics and its Effect on Voting Behavior of Citizens in Nigeria: Kabo Metropolis as a Case Study" highlights issues such as inadequate network, manipulation of results, and improper transmission of results using ICT gadgets during elections. The objectives are to identify network problems in the voting process, assess how result manipulation affects voters, and understand how result transmission impacts voter behavior. The research is significant for students and policymakers in Nigeria and is focused on the INEC headquarters in Kabo and Kano State University. A descriptive research design was adopted, using a structured questionnaire to collect data from 42 INEC staff. The findings reveal that network issues hinder effective result transmission to the IReV

Portal, disrupt voter authentication, and delay the voting process. Additionally, result manipulation leads to voter apathy, electoral violence, and corruption, undermining free and fair elections. The study recommends that INEC, in collaboration with the government, should enhance ICT infrastructure in the electoral process to ensure efficient result transmission, accurate voter authentication, and an improved voting experience.

Keywords: ICT, Voting Behavior, Election, Result Manipulation, Network Issues, INEC, Nigeria, Electoral Process, Free and Fair Elections, Voter Apathy.

53 DRUGS OR SUBSTANCE ABUSE AND IT'S RELATIONSHIP TO MENTAL HEALTH AND COMMUNAL/SOCIETAL CONFLICTS

Abubakar Salihu

*Department Of General Studies, Federal Polytechnic Kabo,
Kano Nigeria.*

Email address and phone number: asmtumfafi@gmail.com.

Abstract

Alcohol and drug use are rapidly increasing worldwide, contributing significantly to the global burden of diseases and societal issues. According to the World Health Organization (WHO) and the United Nations Office on Drugs and Crime (UNODC), various habit-forming substances are widely present across different regions, posing serious health and social challenges. In Nigeria, substance use is strongly linked to psychiatric illnesses, which often lead to communal and societal disorders. A 2018 UNODC report revealed that 10.8% of the Nigerian population, both in urban and rural areas, consumes psychoactive substances, with a higher prevalence among males (92.2%) compared to females (8.8%), especially within the age groups 14-39 and 14-42. Substance abuse results in severe health complications, such as heart conditions, seizures, strokes, and brain damage, collectively known as psychoneurosis. Additionally, it causes psychological disorders, such as memory problems, attention deficits, and impaired decision-making, which increase the risk of violent crimes like rape, killings, armed robbery, and property damage. Ultimately, the abuse of these substances directly affects the brain, leading to psychosis or other psychiatric problems, creating profound social issues.

Keywords: substance abuse, WHO, UNODC, Nigeria, psychoactive substances, psychiatric illness.

54 UNDERSTANDING THE IMPACT OF SINGLE PARENTING ON PUPILS' SCHOOL RETENTION

¹Nam Anthony, ²Michael Adelani Adewusi

*¹College of Education, Open and Distance Learning, Kampala
International University.*

Abstract

This study investigates the influence of single parenting on pupils' school retention in primary schools situated within Iceme Sub- County, Oyam District, Uganda. With the prevalence of single-parent families on the rise, understanding their impact on children's education becomes paramount. Utilizing a comparative research design coupled with qualitative and quantitative research methodologies, this study aims to unravel the intricate interplay between single parenting and pupils' ability to stay enrolled in school. Through the collection of data via questionnaires, interviews, and documentary or historical reviews, researchers seek to gain a comprehensive understanding of the challenges faced by single-parent households and their effects on pupils' attitudes towards schooling. Looking into the experiences of single-parent families and their children within the educational context, this research provided insights that can inform targeted interventions and support mechanisms. The findings contributed to the development of evidence-based strategies aimed at enhancing educational equity and fostering resilience among vulnerable populations. Furthermore, by illuminating the factors influencing pupils' school retention, this study empowers policymakers, educators, and community stakeholders to implement initiatives that address the unique needs of single-parent households and promote inclusive educational environments conducive to academic success.

Keywords: single parenting, school retention, primary education, educational equity

55 PARTNERSHIP FOR SUSTAINABLE DEVELOPMENT: BRIDGING DISCIPLINES AND SOLVING COMPLEX NIGERIA LEADERSHIP CHALLENGES

Ibrahim Umaru Jongur

Department of Primary Education, School of Early Childhood Care and Primary Education, Federal College of Education, Yola, Adamawa State,

Email address: jongur2@yahoo.com, ujibrahim@fceyola.edu.ng

Abstract

Nigeria faces numerous sustainable development challenges, including insecurity (banditry, Boko Haram Kidnaping), poverty, corruption, inequality, and environmental degradation. Effective leadership and collaboration are vital to addressing these issues. This paper explores the role of interdisciplinary partnerships in tackling Nigerian leadership challenges for achieving

sustainable development goals in Nigeria. It discussed sustainable development as it affects Nigeria, identified leadership challenges, the importance of inclusive leadership and participatory governance and the strategies for bridging disciplines through interdisciplinary partnerships, sharing knowledge, and fostering collaborative management and planning in leadership to tackle these complex challenges. It used case studies and examples to illustrate successful partnerships and initiatives. It argued that by emphasizing the importance of inclusive, realistic and multi-stakeholder partnerships to drive sustainable development and overcome Nigeria's leadership challenges. The paper concludes that by embracing partnership and collaboration, Nigeria can unlock its full potential for sustainable development and build a brighter future for all. It recommended for government to encourage interdisciplinary research and collaboration; Foster public-private partnerships and community engagement through deliberate programmes; Support inclusive leadership and participatory governance by granting full autonomy to local government; and Leverage technology and innovation for enhanced collaboration among others.

Keywords: Partnership, Sustainable Development, Leadership Challenges

56 RESILIENCE STRATEGIES AND SUSTAINABLE BUSINESS MODEL INNOVATION OF FIRMS IN CLIMATE CHANGE AND CONFLICT-AFFECTED NORTH-EAST NIGERIA

Hassan Barau Singhry

Abubakar Tafawa Balewa University, Nigeria

Email address: bshassan@atbu.edu.ng

Abstract

The study investigates how businesses in northeast Nigeria adapt to climate change and armed conflicts, both of which pose significant challenges to business sustainability. Located in the Sahel savannah, the region faces severe climate change impacts and ongoing Boko Haram conflicts. Despite these adversities, some businesses perform well. The research addresses the lack of comprehensive studies on business responses to these environmental and social disruptions. Using a qualitative multiple case study design, 24 resilient firms were selected and data collected through semi-structured interviews with managers/owners. Thematic analysis revealed that businesses adopt resilience strategies such as digital technology innovation, network structuring, real-time information gathering, and ambidextrous learning. These strategies form the foundation for a robust resilience model tailored to high-risk environments. The study's main contributions include a new framework that demonstrates how Sustainable Business Model

Innovation (SBMI) enables firms to create, deliver, and capture value in complex settings. It also enriches the existing literature on sustainable business models in challenging business environments.

Keywords: Resilience Strategies, Sustainable Business Model Innovation, Climate Change, Conflict, North-East Nigeria.

57 SOCIAL-EMOTIONAL COMPETENCE AND RISK OF ACADEMIC FAILURE: IMPLICATION FOR SOCIAL AND EMOTIONAL LEARNING

Ibrahim Ahmed

Federal College of Education (Technical) Gombe, Gombe state, Nigeria

Email address: ibrahimahmed@fctgombe.edu.ng, dalibiibrahimahmed@gmail.com

Abstract

Socio-emotional competence is an important aspect of human development that affects various areas of life, from academic and professional success to personal well-being and social integration. These competences act as an important protective mechanism against the risk of academic failure among Nigerian students. The purpose of this study is to investigate how socio-emotional competence supports students at risk of academic failure through the application of the social and emotional learning (SEL) approach. A quasi-experimental pre-test post-test non-equivalent design was conducted with 207 students enrolled in junior secondary schools at Gombe local government of Gombe state, north-eastern Nigeria. The students were divided into two groups: an experimental and a control group. The experimental group was taught using social and emotional learning (SEL), while the control group was taught via a traditional teaching approach. The results obtained from Analysis of Covariance indicated that students taught using SEL had established significant social-emotional competence compared to students in the traditional teaching approach classroom. Based on the obtained result, social-emotional competence significantly reduced the risk of academic failure among students. The results indicate that SEL can be engaged to promote at-risk studentsTM social-emotional competence. The proposition for introducing SEL into teaching and learning was discussed.

KeyWords: Social And Emotional Learning; Social-Emotional Competence; Risk.

58 THE ROLE OF INTERDISCIPLINARY PARTNERSHIPS IN TACKLING NIGERIAN LEADERSHIP CHALLENGES FOR ACHIEVING SUSTAINABLE DEVELOPMENT GOALS IN NIGERIA

Ibrahim Umaru Jongur

Department of Primary Education, School of Early Childhood Care and Primary Education, Federal College of Education, Yola, Adarnawa State.

Email address and phone number: jongur2@yahoo.com, ujibrahim@fcecylola.edu.ng

Abstract

Nigeria faces numerous sustainable development challenges, including insecurity (banditry, Boko Haram kidnapping), poverty, corruption, inequality, and environmental degradation. Effective leadership and collaboration are vital to addressing these issues. This paper explores the role of interdisciplinary partnerships in tackling Nigerian leadership challenges for achieving sustainable development goals in Nigeria. It discussed sustainable development as it affects Nigeria, identified leadership challenges, the importance of inclusive leadership and participatory governance, and the strategies for bridging disciplines through interdisciplinary partnerships, sharing knowledge, and fostering collaborative management and planning in leadership to tackle these complex challenges. It used case studies and examples to illustrate successful partnerships and initiatives. It argued that by emphasizing the importance of inclusive, realistic, and multi-stakeholder partnerships to drive sustainable development and overcome Nigeria's leadership challenges. The paper concludes that by embracing partnership and collaboration, Nigeria can unlock its full potential for sustainable development and build a brighter future for all. It recommended for the government to encourage interdisciplinary research and collaboration; foster public-private partnerships and community engagement through deliberate programs; support inclusive leadership and participatory governance by granting full autonomy to local government; and leverage technology and innovation for enhanced collaboration, among others.

Keywords: Partnership, Sustainable Development, Leadership Challenges

59 ORGANIZATIONAL SUPPORT AS A BASES FOR TECHNOLOGY MANAGEMENT OF LIBRARY STAFF IN UNIVERSITY LIBRARIES IN LAGOS AND OGUN STATES NIGERIA

***¹Tyem, Abraham Istifanus, ²Muduutdait Rita**

¹Department Of Library Information Science College Of Education P.M.B. 01000 Gindiri

Plateau State, Nigeria And Babcock University, Nigeria

²Department Of Library And Information Science College Of Education P.M.B 01000 Gindiri, Plateau State, Nigeria.

**Corresponding author's email address: abraham@gmail.com,*

Abstract:

The study examines the role of organizational support in enhancing technology management in university libraries in Lagos and Ogun States, Nigeria. Organizational support, which includes information, emotional, social network, and tangible support, is identified as a crucial factor in effective technology management. However, research indicates a low level of technology management among library staff in these regions. The study, using a survey research design, targeted 353 library staff across 22 public and private university libraries, achieving a 90.1% response rate (299 respondents). A structured questionnaire was used, and data were analyzed through descriptive and inferential statistics, specifically simple regression analysis. Results showed that organizational support has a significant positive impact on technology management among library staff ($R_{adj2} (0.295) = 8.67, P < 0.05$). The study concludes that strong organizational support is essential for improved technology management in university libraries. It recommends that university management in Lagos and Ogun States sponsor library staff for capacity-building seminars, workshops, and conferences. Additionally, tangible support and social network support should be provided to enhance technology management in these university libraries.

Keywords: Technology Management, Organizational Support, University Libraries, Lagos.

60 PROSPECT OF CONTEMPORARY NIGERIAN POETRY IN PROMOTING ENVIRONMENTAL SUSTAINABILITY.

Abubakar Bappa

Department of English and Literary Studies Federal University of Kashere Gombe State-Nigeria

Email address: abubakarbappa65@gmail.com

Abstract

Environmentalism in recent Nigerian poetry is about the proliferation of ideas for conservation, protection, and sustainability of the ecosystem and human occupation. This idea of ecocriticism. Is greatly gaining prominence in the literacy climate across the globe. This paper attempts to dissect some green values embedded in the Nigerian poetry scene. This is accomplished through extensive reviews of indigenous myriad poetry collections and reflections on the erudition of oral poetics commonly used in both formal and informal teaching and learning. This paper discovers that written Nigerian poetry collections are replete with ideas about the ecosystem and habitat protection and conservation in Nigeria. It goes on to recommend the use of such a medium in promoting environmental education with a view to generating public awareness and desirable change in the people's mindset and skills to enhance the

virtues of environmental sustainability; it has a great role to play in shaping the minds of the people toward environmental protection.

Keywords: Ecosystem, Sustainability, And Environmental Protection.

61 EXPLORING THE IMPACT OF SOCIAL MEDIA ON ADOLESCENT MENTAL HEALTH IN KANO METROPOLIS

Aisha Muhammad Yakasai

Federal Polytechnic Kobo, Kano State, Nigeria.

Abstract

The study examines the impact of social media on adolescent mental health in Kano metropolis, focusing on the correlation between social media usage and psychological well-being. Using a quantitative research design, a survey was conducted on a sample of 269 students selected through simple random sampling from an estimated population of 900 higher institution students, guided by the Krejcie and Morgan table. Over two years, the study tracked adolescents' mental health indicators such as anxiety, depression, self-esteem, and social connectedness using standardized psychological assessments and questionnaires. The findings reveal a strong relationship between social media usage and mental health, with a correlation coefficient of $r = 0.89$ (89% effect). The results show that social media significantly influences adolescent social interactions and psychological well-being, depending on platform preferences, content consumption habits, and individual resilience factors. The study concludes by emphasizing the need to understand the nuanced relationship between social media engagement and mental health outcomes and suggests potential avenues for intervention and support.

Keywords: social media, adolescents, mental health, psychological well-being.

62 CURRICULUM DECOLONIZATION AND CULTURAL LIBERATION: AN AGENDA FOR HIGHER EDUCATION IN AFRICA

Enu, Donald Bette, Mwanja Paul

*College of Education, Open Distance & E-Learning
Kampala International University, Uganda [Donald.Enu@KIU.
Ac.Ug](mailto:Donald.Enu@KIU.Ac.Ug) College Of Education, Open Distance & E-Learning
Kampala International University, Uganda*

Abstract

This paper focused on the imperative for gradual curriculum decolonization in higher education in Africa. In the past six decades, Africa's educational curriculum,

which has been a colonial legacy, has been dominant and in firm control and dictates of the colonial masters. This is a deliberate and systemic plan to ensure the continuous erosion of African heritage, values, and culture for the strategic selfish interests of the colonialists. Building on the need to integrate African indigenous knowledge contextualized on the peculiarities of Africans that will liberate and promote the collective identity and culture of African people. The need for African higher education institutions to rise to the challenge of decoupling their curriculum from Europe-Centric dependency and biases should assume prime concern with the utmost purpose of reversing the negative narrative that has taken a great toll on the larger African continent with respect to atrophying the cherished culture, values, national heritage, and identity of the great people of Africa. The paper will adopt a historical approach where data will be sourced from valid published journal articles, well-documented evidence-based records, books, as well as other relevant records related to the subject being addressed. The paper will advocate for comprehensive educational policy review by educational stakeholders managing higher educational institutions within Sub-Saharan Africa targeted at curriculum review and cultural liberation in order to reset the future of African higher education.

Keywords: Curriculum, Decolonization, Culture, Liberation, Higher Education

63 HAUSA LANGUAGE: A 21ST CENTURY GIANT FOR COMMUNICATION AND GENERAL INFORMATION DISSEMINATION

Hamza Shehu Usman

*Hausa Department, Federal College of Education Katsina,
Katsina State – Nigeria.*

Email address: bairuzma@gmail.com.

Abstract

As a unique medium of communication, language stimulate individuals, the society and the organizations success. It fuels all aspects of human endeavors especially in directing and controlling daily activities. Language remain the flat form for communicating ideas, feelings, thoughts, vision and exploring our environment for developmental purposes. Hausa language as a major Nigerian and an emerging global language in the 21st century plays prominent role in local and international communication and information dissemination. This paper examines Hausa language strength in terms of speaker population and geographical spread. The study analysis identifies some of the language roles in communication especially in the area of education, political activities, public enlightenment, religious matters and general information dissemination through Hausa oral songs, mass media, internet etc. The study

is guided by the application of Gusau (2003, 2011 and 2014) approach on the technique of study of Hausa oral songs and secondary source. The study revealed that, the use of Hausa language in information and communication add value to current and schedule public engagement. Also, public are motivated and easily mobilized to desired goals. Similarly the study findings established that Hausa language in information and communication is witnessing high patronage and manipulation by Hausa oral songs artists, politicians, local and international media, NGOs and the religious bodies in the 21st century than ever before.

Keywords: Hausa Language, 21st Century, Giant, Communication, Information, Dissemination.

64 THE CONTRIBUTIONS OF MAMMAN SHATA ORAL SONGS ON EXCLUSIVE BREAST FEEDING MASS MOBILIZATION AND PUBLIC ENLIGHTENMENT

Hamza Shehu Usman

*Hausa Department, Federal College of Education Katsina,
Katsina State – Nigeria.*

Email address: bairuzma@gmail.com.

Abstract

Mamman Shata is a great philosopher and well known for his Hausa oral song performance. His songs know no bounds. This study examines Mamman Shata's oral song titled "A Ba Yaro Nonon Uwa" (Mother Exclusive Breast Feeding) contribution towards mass mobilization and public campaign for exclusive breast feeding by nursing mothers in Northern Nigeria. The study analysis is guided by Gusau (2003, 2011, and 2014). The method of data collection for this study is exclusively through resources from transcribed Hausa oral songs drawn from some selected theses and textbooks such as Diwanin Wakokin Baka na Hausa (Gusau, 2009, 2014, 2015), and other secondary sources. This paper established that Mamman Shata's oral songs represent his philosophical thinking and his views on local and national issues. Also, the study revealed that this particular oral song is a valuable material that allows individuals to view the value of nursing mothers' breastfeeding potentials.

KeyWords: Mamman Shata, Oral Songs, Breast Feeding, Mass Mobilization, Public Enlightenment.

65 THE EXPERIENCES OF WOMEN IN CONFLICT SITUATIONS AND CRISES: A GLIMPSE INTO NORTHERN NIGERIAN WRITINGS

Zainab Abdulkarim

*Faculty of Arts, Department of English Language and
Linguistics, Sokoto State University, Sokoto State, Nigeria.*

Email address and phone number:

abdulkarimzaynab@gmail.com

Abstract

Women in conflict zones often face heightened risks of gender-based violence, including rape, abduction, and forced marriages. Conflicts often result in the displacement of populations. Women and children are particularly vulnerable during these migrations, facing precarious living conditions in refugee camps or as internally displaced persons. Writings from Northern Nigerians provide an essential glimpse into the multifaceted experiences of women in conflict situations and crises. These writers discuss the intersection of cultural expectations and the realities of living through conflict, offering a nuanced view of societal change. Some writers from Northern Nigeria often depict the psychological and physical trauma that women endure in such environments. They also highlight the loss of home, family members, and community, emphasizing the emotional and social toll of displacement. This research will analyze Helon Habila's *Chibok Girls*, Edify Yakusak's *After They Left*, Razinat Talatu Muhammed's *My Daughter, My Blood*, Habiba Noor Alkali's *The Phantom Army*, and Hadiza El-Rufai's *An Abundance of Scorpions*. These narratives explore how disruptions lead to both challenges and opportunities for redefining women's roles in society. Through their writings, they provide a voice to the voiceless, bringing international attention to their plight and advocating for peace and justice. These narratives not only document the suffering and challenges faced but also celebrate the strength, resilience, and enduring spirit of women. By giving voice to their stories, they contribute to a broader understanding and awareness of the impacts of conflict on women and advocate for change and empowerment.

Keywords: Women, Conflict, Crises, Northern Nigeria, Writers.

66 THE ROLE OF DIGITAL STORYTELLING IN SUPPORTING SPECIAL NEEDS LEARNERS IN LAGOS STATE PRIMARY SCHOOLS

Abstract

In recent years, digital storytelling has emerged as a promising tool for teaching and learning, particularly for students with special needs. The use of digital storytelling has gained popularity as a teaching and learning strategy deployed in various educational settings. This strategy involves the use of digital media, such as images, audio, and videos, to create narratives that convey instructional messages and ideas. This approach is effective in engaging students with special needs, as it provides both visually and auditory-rich learning experiences that could help them understand complex concepts and improve their communication skills. In primary

schools, digital storytelling strategies could be used to support students with various special needs, such as autism spectrum disorder, dyslexia, and attention deficit hyperactivity disorder (ADHD). Despite the reported benefits of this teaching strategy in developed countries, findings show that little has been done in terms of its use, implementation, and deployment in typical Nigerian classrooms. This study explores the roles of digital storytelling in supporting special needs children in Lagos State primary schools. The paper discusses the benefits of digital storytelling, especially for special needs children, the challenges associated with its implementation, and recommendations made for its effective use in the classroom.

Keywords: Digital Storytelling, Strategy, Special needs, Learning disabilities, Media

67 THE ROLE OF ENGLISH LANGUAGE EDUCATION IN FOSTERING SUSTAINABLE DEVELOPMENT PARTNERSHIPS: AN AFRICAN PERSPECTIVE

Hamza Adamu Soye

Email address:

hamzaadamu78@fctgombe.edu.ng

Abstract

This paper examines the critical role of English language education in fostering partnerships for sustainable development from an African perspective. As a global lingua franca, English serves as a bridge across diverse linguistic and cultural landscapes, enabling collaboration and communication essential for addressing the continent's multifaceted challenges. The study explores how English language proficiency can enhance educational opportunities, economic growth, and social integration, aligning with the United Nations Sustainable Development Goals (SDGs). By facilitating intercultural dialogue and effective communication, English language education supports the formation of robust partnerships between governments, non-governmental organizations, educational institutions, and the private sector in Africa. Through an analysis of case studies and best practices, the paper highlights successful English-language initiatives that have driven sustainable development projects across the continent. Ultimately, this study underscores the importance of incorporating English language education into sustainable development strategies to promote inclusive and equitable progress in Africa.

Keywords: Proficiency; Sustainable Partnerships; Development; Intercultural Dialogue

68 TRADITIONAL MEDIA VS. NEW MEDIA: THEIR IMPACT ON AFRICAN CULTURAL PRESERVATION AND LANGUAGE MAINTENANCE

Basiru Saidu

*Department of English Language and Linguistics Sokoto State
University, Sokoto, Nigeria*

Email address: baasheersaidu@gmail.com.

Abstract

This study looks into the impact of traditional and new media on African cultural preservation and language maintenance. The aim of this study is to investigate the synergistic potential of integrating traditional and new media for the preservation of African cultural heritage and the maintenance of indigenous languages. The study is underpinned by the theoretical framework of social constructionism. The study employs a qualitative research methodology to explore the role of media, both traditional and new, in African cultural preservation. Participants were selected using purposive sampling to ensure diverse perspectives. Data were analyzed using narrative analysis shared by participants through in-depth interviews with a diverse array of stakeholders, including cultural practitioners, community leaders, policymakers, academic researchers, and youth representatives. The research investigates perceptions, challenges, and strategies related to media-based preservation endeavors. The findings underscore a collective recognition of the enduring significance of traditional media, such as oral traditions and communal rituals, in transmitting cultural wisdom and nurturing collective identity. Nevertheless, concerns surrounding issues such as cultural authenticity, the digital divide, and the potential dilution of traditional practices in the digital era were also elucidated. Participants advocate for a harmonious fusion of traditional and new media approaches, emphasizing the importance of reaching varied audiences while upholding cultural integrity. Community engagement and youth involvement emerge as pivotal facets in ensuring the longevity of preservation initiatives. The study offers recommendations encompassing the integration of media modalities, community empowerment, youth participation, policy advocacy, research advancement, and the celebration of cultural diversity.

Keywords: Traditional Media, New Media, African Cultural Preservation, Language Maintenance

69 CROSS-SECTOR PARTNERSHIPS IN AFRICAN MUSIC INDUSTRIES FOR SUSTAINABLE DEVELOPMENT, NIGERIA AND SOUTH AFRICA.

Anthony, Elizabeth Bebuo

*Department of Music Cross River State College of Education,
Akamkpa, Cross River State*

Email address and phone number: Liztony67@Yahoo.Com

Abstract

The African music industry, rich in cultural heritage and economic potential, faces challenges in achieving sustainable development. This study optimism is to address the problem of how cross-sector partnerships can enhance the sustainability of the African music industry. It is to explore the dynamics of such partnerships and their impact on sustainable development. Using a mixed-methods approach, including qualitative interviews, quantitative surveys and comparative analysis, this research shall examine the experiences of key stakeholders in the music, tourism, and cultural sectors across Nigeria and South Africa. The study shall be framed around Cultural Policy Theory by David Throsby (2001) which provides insights into the role of cultural policies in fostering a vibrant music industry and the Stakeholder Theory by Edward Freeman (1984), emphasizing on the importance of diverse stakeholder engagement for achieving sustainability. Findings shall gear towards how cross-sector partnerships could lead to increase resource mobilization, enhance innovation, and greater market access for African music. The study anticipates conclusion on cross-sector partnerships to be crucial for the sustainable growth of the African music industry, while strengthening policy frameworks, fostering stakeholder collaboration, and investing in capacity building to maximize the benefits of these partnerships shall form parts of the recommendations.

Keywords: African Music, Development, Cross-Sector Partnerships, Cultural Policy, Stakeholder Theory

70 THREATS TO NIGERIA'S NATIONAL SECURITY: A RECONSIDERATION

Godwin Onuh Odeh

*Department of History, Sokoto State University,
Sokoto-Nigeria*

Email address: godwin.odeh@ssu.edu.ng

Abstract

The civil war (1967–1971) constituted the first major security challenge Nigeria faced. The fallouts of the epic liquidation of the Union of the Soviet Socialist Republics (USSR) in 1991 and the memorable fall of the strongman of Lybia, Muahamar Gaddafi, in 2011, coupled with the plethora of security threats posed by the Islamic State's West Africa Province (ISWAP), the Boko Haram insurgents and Ansaru, the nationalist and separatist groups, banditry, piracy, kidnapping, and

substance abuse, among others, worsen the problem. It is against this backdrop that this paper re-examines threats to national security in Nigeria in the changing global security scene. The paper adopts descriptive and analytical methods of historical narrative and draws on evidence from primary, secondary, and tertiary sources. It contends that what Nigeria has been experiencing for over a decade now or so was previously unknown to her and appeared to be part of the fundamental fallouts of the globalization of crime, which some nations had earlier experienced while others are still experiencing. As fallouts and a response to global security dynamics and shift, threats are like the COVID-19 pandemic that spared no nation. Arising from the destructive and retrogressive nature of security challenges, the paper concludes and recommends that all hands must be on the desk, as Nigeria has a robust intelligence and security architecture to contain myriads of threats facing it and the entire West African sub-region as a regional hegemon.

Keywords: National Security, Threats, Vulnerability, Piracy, Organized Crime

71 THE BANE OF INDUSTRIALIZATION IN SUB-SAHARA AFRICA FOCUS: NIGERIA A CRITICAL APPRAISAL

Nwanekwe Valentine Chukwuemeka

Department of Political Science, Ebonyi State College of Education Ikwo, Ebonyi State Nigeria

Email address and phone number: valnwanekwe@gmail.com.

Abstract

Nigeria is grappling with the problem of insecurity like most of her counterpart in sub-Saharan Africa. These security challenges border mostly on conflict, corruption, violent agitations, kidnapping, and hostage taking. The factors responsible for this ugly development range from threats from the Niger Delta militants and the indigenous people of Biafra; others include the Boko-Haram terrorists and the fight for the Oduduwa republic. All of these have culminated in the loss of lives and massive destruction of properties. This ugly trend has tremendously affected the country's national cohesion, political and economic survival, and capacity for industrial growth and development. In lieu of this insecurity, this paper critically analyzed the problem with a view to bringing to the fore the underlying variables that gave vent to the unfortunate situation, which have been directly linked to the factors inherent in the internal and external dynamics in her body politics. These include corruption, religious and parochial politics, and insensitivity on the part of the ruling class. The industrial development of the country cannot be overemphasized; thus, in tackling the problems, this paper advocated the

enthronement of selfless leadership, the fight against corruption and terrorism, the pacification of warring actors, and the enthronement of an enduring peace, which is quintessential for meaningful growth, enduring industrial harmony, and development.

Keywords: conflict, violence, insecurity, industrialization, development, Nigeria.

72 SECURITY THREATS AND SOCIO-ECONOMIC DEVELOPMENT IN AFRICA

Onuk Bulus Ojem

Email address: onuk.bulus@nsuk.edu.ng

Abstract

Security threats in Africa have far-reaching effects on the socio-economic development of African countries. They can disrupt the normal functioning of African societies, discourage foreign investment, and divert government resources from developmental projects to security-related expenditures. This study aims to examine the impact of security threats on the socio-economic development in Africa, using the state fragility theory as a theoretical framework. The theory proposed by Sara (2008) explains how extreme poverty and low levels of human and social development that challenge a state are linked to weak institutional capacity and poor governance. The study collected data using both qualitative and quantitative methods. The findings revealed that terrorism and other security threats could decrease foreign direct investment and capital formation, increase risk perception among potential investors, and undermine socio-economic development by creating an environment of fear and instability that affects investment and economic growth. The study recommended that African countries and their external partners should prioritize human sustenance and develop security policies addressing people, development, and social issues. Additionally, awareness campaigns should be conducted to educate the public about the dangers of insecurity in schools, churches, mosques, markets, and media outlets.

Keywords: Security Threats, Socio-Economic Development, State Fragility, Foreign Investment

73 DIGITAL TRANSFORMATION AND PUBLIC SERVICE DELIVERY IN UGANDA: A CASE OF KAMPALA CAPITAL CITY AUTHORITY

Joseph Tindyebwa

College of Humanities and Social Sciences, Kampala International University, Uganda

Email address: jtindyebwa1@gmail.com ,

Abstract

This study investigated digital transformation in e-governance services, focusing on its impact on public service delivery by the Kampala Capital City Authority (KCCA). Key services analyzed included e-revenue payment, city road construction, driving permit issuance, and environmental public health satisfaction. The study aimed to: (1) assess the impact of e-government services on public service efficiency; (2) evaluate service quality through e-government platforms; (3) examine citizen engagement in e-government initiatives; and (4) analyze the effectiveness of policies supporting digital transformation within KCCA. Grounded in the Technology Acceptance Model (TAM) by Davis (1989), the research targeted a population of 4,050,826, including 1,133 KCCA employees, resulting in a sample size of 296 using Slovin's formula. Data were collected through interviews and questionnaires, employing purposive and random sampling techniques. A correlational descriptive and case study design was utilized, combining quantitative and qualitative methods for data analysis. Results showed significant correlations between the adoption of e-government services and both efficient and high-quality public service delivery. However, challenges in digital infrastructure, including policy knowledge gaps affecting digital literacy, were noted. The effectiveness of digital literacy in driving permit acquisition was measured with a mean of 3.45 and a standard deviation of 1.465. The study concluded that enhancing digital transformation policies could improve public service outcomes, reaffirming TAM's relevance in understanding technology use in e-government initiatives. Recommendations include pursuing effective digital transformation through e-governance and enhanced digital literacy initiatives by KCCA in Uganda.

Keywords: Digital Transformation; Digital Literacy; Public Services.

74 PROJECT MANAGER'S SKILLS AND PROJECT SUCCESS OF HARGEISA WATER AGENCY WATER AGENCY IN HARGEISA DISTRICT, SOMALIA

Shafie Ali Salad

College of Humanities and Social Science, Kampala International University, Uganda

Email address:

salad.shafie@studmc.kiu.ac.ug

Abstract

The study investigated the association between project manager's skills and project success using a correlation research design. Two hundred and one participants were selected including; project stakeholders, project managers and project staff, Hargeisa Water Agency staff, and project beneficiaries through purposive and simple random sampling. The content validity index was

used to test the instrument's validity. Cronbach's Alpha was employed to test the reliability of the instrument. Frequency distribution and Pearson's correlation coefficient were used to conduct the analysis. The findings of the study revealed that project manager's skills have a significant positive relationship with project success. The study concludes that a project manager's skills significantly influence project success. This investigation sheds light on the significance of project manager's skills in influencing project outcomes, thereby contributing to the enhancement of project management practices within the agency and potentially improving the efficiency and effectiveness of water-related projects in Hargeisa district, Somalia. Within the context of this finding, the study recommends that the agency should enhance the communication skills of project managers to ensure effective team coordination, stakeholder engagement, and information dissemination, which are critical for project success by implementing training sessions that focus on improving verbal and written communication skills, active listening, and conflict resolution techniques, and conducting periodic reviews of communication practices within projects to identify gaps and areas for improvement, ensuring that project managers are maintaining consistent and clear communication.

Keywords: Project manager, skills, project success.

ECONOMICS AND MANAGEMENT SCIENCE

75 TALENT MANAGEMENT AND PERFORMANCE OF NON-GOVERNMENT ORGANIZATIONS IN UGANDA

Miuro Anifa

College of Economics and management, Kampala International University

Email address and phone number:

anifa.miuro@studmc.kiu.ac.ug ,

Abstract

The concept of human resource management has evolved from traditional personnel administration to encompass strategic talent management, which optimizes human capital within organizations. Talent management involves processes such as talent planning, recruitment, development, performance management, rewards, employee engagement, empowerment, and retention, all aimed at aligning employees with the organization's culture, vision, and mission to enhance performance. This study investigates the implementation of talent management strategies in non-governmental

organizations (NGOs) in Uganda and examines its impact on organizational performance. A comprehensive literature survey was conducted to identify key talent management processes, followed by an empirical survey to assess the extent of their implementation in Ugandan NGOs. The findings reveal that talent management strategies—such as talent planning, recruitment, performance management, compensation, and employee empowerment—are not effectively administered in these organizations. However, the study confirmed a positive linear relationship between talent management and organizational performance, indicating that improvements in talent management practices would significantly enhance performance outcomes. The research recommends strengthening the implementation of these strategies in NGOs to optimize employee potential and achieve organizational goals.

Keywords: Talent Management, Organizational Performance, Non-Government Organizations.

76 PROGRAMME-BASED BUDGETING SYSTEM (PBS) AND BUDGET PERFORMANCE IN LOCAL GOVERNMENTS OF UGANDA

***Wabomba Kadili, Ismah Serunjoji, and Dolorence Alaki Wakida**

¹*Department of Economics Kampala International University,*

²*Department of Business Management Kampala International University,* ³*Department of Business Management Kampala International University.*

**Corresponding author's email address: Kadili.wabomba@kiu.ac.ug, Ismah.serunjoji@stud.kiu.ac.ug, dohwakida@gmail.com*

Abstract

This research examines the impact of the Programme-Based Budgeting System (PBS) on budget performance in local governments of Uganda. With increasing demands for efficiency and accountability in the management of public funds, Uganda adopted PBS as a tool to align budgetary allocations with national development priorities and ensure optimal resource utilization. This study explores how PBS has influenced the planning, execution, and monitoring of budgets within local governments, assessing its effectiveness in improving financial performance, service delivery, and transparency. The research employs a mixed-methods approach, using both quantitative data from budget performance reports and qualitative data from interviews with local government officials, finance officers, and community representatives. Key areas of focus include the alignment of budget allocations with local priorities, timeliness and accuracy of budget execution, and the capacity of local governments to implement and monitor PBS effectively. Preliminary

findings suggest that while PBS has enhanced budget transparency and alignment with national goals, challenges such as inadequate capacity, delayed releases, and limited community participation hinder its full impact. The study concludes with recommendations to strengthen the system's effectiveness, including capacity building, timely disbursement of funds, and enhancing participatory budgeting mechanisms at the local level.

Keywords: Programme-Based Budgeting System (PBS), Budget Performance, Local Governments.

77 DETERMINANTS OF UNEMPLOYMENT IN EAST AFRICAN COMMUNITY (1990-2020)

***Muhereza T. Franklin, Kibuuka Muhamma, Mutenyo John, Ocan Patrick, Ssekajugo Derrick, Olanipekun Dayo Benedict, Friday Edeh and Dania Evelyn Ndidi**

College of Economics and Management, Kampala International University, Uganda

**Corresponding author's email address: franklin.muheraza@kiu.ac.ug, mohammed.kibuuka@kiu.ac.ug, john.mutenyo@kiu.ac.ug, ocanenon@gmail.com, dayo.olanipekun@kiu.ac.ug, friday.edeh@kiu.ac.ug, dania.ndidi@kiu.ac.ug*

Abstract

This study investigates the determinants of unemployment in the East African Community (EAC) using panel time series data. Descriptive statistics were applied to analyze variable trends, while Pesaran-Shin unit root tests were conducted to ensure data stationarity. Both fixed effects and random effects Generalized Least Squares (GLS) regression models were employed, with the Breusch and Pagan Lagrangian multiplier test guiding model selection. The key variables examined included foreign direct investment (FDI), education expenditure, internet usage, population growth, and imports. Among these, FDI, internet usage, and imports were found to have a significant impact on unemployment. Factors that contributed to reducing unemployment included inflation, general government consumption, health expenditure, defence expenditure, mobile phone subscriptions, and exports. Of these, general government consumption, health expenditure, defence expenditure, and exports were significant in reducing unemployment. Based on the findings, this study recommends that EAC governments focus on strengthening FDI policies, maintaining moderate levels of inflation, increasing government consumption expenditure, and supporting steady population growth. Additionally, regulating defence expenditures, internet usage, mobile phone subscriptions, and imports is advised to stimulate economic growth and reduce unemployment across the region.

Keywords: Unemployment, East African Community,

foster greater economic collaboration within the region. The findings underscore the transformative impact that digital solutions can have on trade, advocating for broader adoption to catalyze growth and economic interconnectivity in Africa. This paper highlights the importance of digital innovation in trade and presents Swavelink as a practical solution to boost intra-African trade efficiency.

Keywords: Digital Transformation, Intra-African, Trade, Swavelink

78 AUTOREGRESSIVE DISTRIBUTED LAG (ARDL) MODEL ON THE DETERMINANTS OF INFLATION IN NIGERIA

Yakubu Isyaku Kibiya

Federal Polytechnic Kobo, Kano Nigeria.

Email address: kibiya143@gmail.com

Abstract

Inflation is a microeconomic challenge persistently occurring in Nigeria with its diverse effects on the stability and economic growth of the country. This study aims to investigate the key economic variables affecting inflation in the country using the Auto Regressive Distributed Lag (ARDL) approach. We use R package software to examine the relationships between inflation and its determinants, including interest rate, exchange rate, money supply, real GDP, total imports, and total exports. We use annual time series data obtained from the central bank of Nigeria and the World Bank spanning the period between 1986 and 2020. Our results revealed that only a short-run relationship exists between the variables analyzed. The study also revealed that in the short-run current value of real GDP, current and previous values of total export and previous value of money supply have a significant negative impact on inflation over the period studied. Previous inflation value, current value of money supply, current total import, current exchange rate, and current interest rate have significant positive impacts on inflation.

Keywords: inflation, interest, exchange, import, export.

79 NEXUS BETWEEN CAPITAL IMPORTATION FLUCTUATIONS AND UNEMPLOYMENT IN NIGERIA

***Wasiu Akintunde Yusuf, Ebunoluwa Oluwaseun Oyegoke and Aliyu Ibrahim Shettima**

Department of Economics, Nile University of Nigeria, FCT Abuja

*Corresponding author's email address:

yusufwasin@nileuniversity.edu.ng

Abstract

Every economy across the globe requires at one

time or another some augmentations that could boost investments and reduce unemployment. Such supplementary injections do come through capital importation. In Nigeria, there is dearth of literature on the nexus between the upward trend in unemployment and the volume of capital imported for possible investments. The study observed that other investments constitute a larger part of the capital importation. The multiple linear regression analysis indicates that all the components of capital importation affect unemployment negatively except for other investments, which have a positive contribution to unemployment. Also, the model obtained showed that foreign direct investments and foreign portfolio investments were not volatile; hence, this model could be used to study the nature of the dependency of unemployment on capital importation and can also be used for monitoring, hence reducing the prevalence of unemployment in Nigeria.

Keywords: Capital Importation, Garnish, FDI, FPI, Other Investments, Remittances, Volatility

80 FINANCIAL DEVELOPMENT AND ECONOMIC GROWTH: CHALLENGES AND OPPORTUNITIES IN AFRICA

Musaddiq Balarabe Wakili

Federal Polytechnic Kobo, Kano State, Nigeria.

Email address:

wakilimusaddiq@gmail.com

Abstract

The term and quest of development Financial is vast, and it goes with economic boosting in the world economy to mobilize financial resources (Stephen Pratt 2009). Finance as a management discipline seeks to maximize private returns with financial operations related to known and unknown skills, including the development of financial institutions, markets, and instruments, which is crucial for economic growth in Africa. However, the continent continues to face significant challenges in this area, including limited access to financial infrastructure and political instability. This presentation will examine the state of financial infrastructure development in Africa, exploring the current landscape of financial institutions and markets, identifying the factors that have hindered financial development, and proposing strategies to overcome these challenges in financial development. It has long been recognized as a key factor in economic growth and poverty reduction in Africa. The need for financial development is particularly acute, as the region has historically lagged behind other regions in terms of financial inclusion and access to financial services. This presentation will provide an in-depth analysis of the current state of financial development in Africa, highlighting the opportunities and challenges facing the continent.

81 AN EMPIRICAL STUDY OF INFORMATION TECHNOLOGY (IT) AND PERFORMANCE IMPACT OF CUSTOMER RELATIONSHIP MANAGEMENT: A STOCHASTIC APPROACH

Ukaidi, Chris U.A, Ukaidi, Evelyn Ugonna, Jacob Eneji Ashibi, Ogwal Emmanuel

¹College Of Economics and Management Kampala International University, Uganda, ²Department of Business Management, University Of Calabar Nigeria, ³Department of Development, Peace and Conflict Studies Kampala International University Uganda, ⁴College of Economics and Management Kampala International University Uganda

*Corresponding author's email address and phone number:
ukaidichris@kiu.ac.ug, ogwalemmablessed@gmail.com

[ORCID iD: 0009-0003-3274-5277](https://orcid.org/0009-0003-3274-5277)

[ORCID https://orcid.org/0009-0003-3274-5277](https://orcid.org/0009-0003-3274-5277)

Abstract

Customer relationship management (CRM) is one of the fastest-growing software market industries in the world. The market for CRM software revenue totaled \$5.7 billion in 2022. This paper examined the relationship between the relevance dimension of IT and the performance impact of the customer relationship management CRM system. A sample of 1700 correspondents was investigated with a reliability coefficient scale (Cronbach Alpha) of 0.6 and factor analysis multivariate statistical method, exploring the relationship of the variables. The study revealed a positive relationship between information technology and customer relationship management. The investigation recommends training and retraining of information technology workshops for customers in the world of work.

Keywords: Information Technology (IT), Customer Relationship Management (CRM), Investments, Systems, Performance.

82 MODELLING THE DETERMINANTS OF INFLATION IN NIGERIA- ARDL APPROACH

Yakubu Isyaku Kibiya

Federal Polytechnic Kano, Kano Nigeria.

Email address: kibiya143@gmail.com

Abstract

Inflation is a microeconomic challenge persistently occurring in Nigeria with its diverse effects on stability and economic growth of the country. This study aims to investigate the key economic variables affecting inflation in the country using the Auto Regressive Distributed

Lag (ARDL) approach. We use R package software to examine the relationships between inflation and its determinants, including interest rate, exchange rate, money supply, real GDP, total imports, and total exports. We use annual time series data obtained from the Central Bank of Nigeria and the World Bank, spanning the period between 1986 and 2020. Our results revealed that only a short-run relationship exists between the variables analyzed. The study also revealed that in the short-run current value of real GDP, current and previous values of total export and previous value of money supply have a significant negative impact on inflation over the period studied. Previous inflation value, current value of money supply, current total import, current exchange rate, and current interest rate have significant positive impacts on inflation.

Keywords: Inflation, Interest, Exchange, Import, Export.

83 LEVERAGING DIGITAL TRANSFORMATION FOR INTRA-AFRICAN TRADE: THE DEVELOPMENT AND IMPACT OF SWAVELINK

*Licentiate Ahmed Kaweesi , Ogwal Emmanuel

Under the auspices of the inter-professional association (DAAD) at East African Polytechnic College Kyambogo, supervised by the Kyambogo Research Institute

*Corresponding author's email address:

kaweesi@startboomdigital.com.

College of Economics and Management (MEPP), Kampala International University, Uganda

emmanuel.ogwal@studmckiu.ac.ug or ogwalemmablessed@gmail.com

[ORCID iD: 0009-0003-3274-5277](https://orcid.org/0009-0003-3274-5277)

[ORCID https://orcid.org/0009-0003-3274-5277](https://orcid.org/0009-0003-3274-5277)

Abstract

The research addresses the pivotal role of digital transformation in enhancing intra-African trade. The study, practice-led and rooted in real-world applications, investigated the current state of digital technology utilization among traders in Kampala, particularly those engaged in the exchange of goods across East Africa. Despite trade's critical role in regional economic integration, primary data collection revealed minimal adoption of digital tools among traders. This underutilization poses a significant barrier to the growth and efficiency of intra-African trade. Recognizing the vast potential that digital integration holds, the research culminated in the development of Swavelink, a social media and e-commerce platform designed to bridge this gap. Swavelink serves as both a communication and trading hub, enabling traders to expand their reach, streamline operations, and ultimately

Keywords: Financial Infrastructure, Economic Growth, Africa, Financial Inclusion.

84 INFORMATION MANAGEMENT SYSTEM AS A PANACEA FOR BUSINESS DECISION MAKING AND STRATEGY DEVELOPMENT IN KATSINA CENTRAL MARKET

*¹Hayatu Khaleel Bako and ²Mansur, Shehu

¹Department of Business Informatics, Katsina State Institute of Technology and Management & ²Department of Educational Foundation, University of Abuja

*Corresponding author's email address:

hayattkhaleel@gmail.com & elmensoorsh@gmail.com

Abstract

This study explores the role of Information Management Systems (IMS) in business decision-making and strategy development within Katsina Central Market. IMS involves collecting, storing, and disseminating information to support effective decision-making. In this context, IMS helps businesses understand customer needs, track sales, monitor inventory, and manage the supply chain. The study adopts a mixed-methods approach, using both qualitative and quantitative data from 20 businesses selected through stratified sampling. Data was gathered through Likert-scale questionnaires and interviews, then analyzed using descriptive statistics and thematic analysis. The findings show that 80% of businesses recognize IMS as essential for understanding customer preferences and making informed decisions. However, only 20% have implemented IMS, with 70% still relying on manual methods for data collection and analysis. The study recommends that businesses adopt IMS, conduct regular market research, invest in data analytics training, and establish a market information center. Additionally, collaboration between businesses and market associations is suggested to share information and best practices.

Keywords: Information Management Systems, Market Strategies, Businesses, Data Analytics.

85 EFFECT OF OIL PRICE VOLATILITY AND ECONOMIC GROWTH IN NIGERIA

Shamsuddeen Abubakar

Department of Banking and Finance, Abubakar Tatari Ali Polytechnic, Bauchi

Email address: sdeena636@gmail.com

Abstract

The study examined the effect of oil price volatility on economic growth in Nigeria. Annual time series data used period from 2001 to 2022. The study made use of generalized auto-regressive analysis. The data used was sourced from the Central Bank of Nigeria Statistical

Bulletin and OPEC database 2021. The variables used in the analysis are gross domestic product (GDP) as the dependent variable, oil price, oil price fluctuation, exchange rate, and interest rate as the independent variables. It was discovered that all three independent variables show a positive and significant impact on defendant variables. There should be a need for the government to create some linkages in the oil sector to diversify the economy through the proceeds from oil. Judicious.

Keywords: Oil Price Volatility, Economic Growth, Exchange Rate, Interest Rate.

86 EXCHANGE RATE VOLATILITY AND MANUFACTURING EXPORTS IN NIGERIA: 1986-2020

*Gambo D. Fanna, Yusuf, Wasiu Akintunde, Oyegoke Ebunoluwa Oluwasuen

Nile University, Nigeria

*Corresponding author's email address: m.fausat@nileuniversity.edu.ng

Abstract

The study examines the effect of exchange rate volatility on manufacturing exports in Nigeria using data from the World Bank and the United Nations Conference on Trade and Development (UNCTAD). The study employed Exponential Generalized Autoregressive Conditional Heteroscedasticity (EGARCH) to estimate the volatility and generate the volatility series (EXCHVOL) and Vector Error Correction Mechanism (VECM) as a form of vector auto-regression (VAR) to estimate the effects and forecast results. The results proved there is significant volatility in the endogenous variable EXCH, and the further estimates found that the effect of EXCHVOL on MEX is positive but short-lived, and the effect of FDI on MEX is near-zero. However, the most prominent effect on MEX is of INF, which impacts it negatively and does not get corrected in the forecasted period of 10 years. The study suggests greater loan services to manufacturing companies to boost productivity and better infrastructural provision to better support industrial activities.

Keywords: Exchange rate volatility, manufacturing exports, EGARCH, VECM.

87 FUEL SUBSIDY REMOVAL AND THE DEMAND FOR HEALTHCARE IN NIGERIA: THE IMPLICATION OF THE COPING STRATEGIES AMONG FIXED INCOME EARNERS IN NIGER STATE

Muktar Bala

Email address: muktarbala@yahoo.co.uk

Abstract

This study investigates the impact of inflation on fixed-income earners in Niger State, Nigeria, particularly following the removal of fuel subsidies in the second quarter of 2023. With Nigeria's underdeveloped health insurance system, fixed-income earners in this state are expected to be significantly affected by rising inflation. A sample of 1,200 individuals was surveyed, employing both descriptive statistics and logistic regression for data analysis. The findings revealed that within the first three months post-reform, many fixed-income earners resorted to borrowing, seeking assistance from friends and family, or selling assets to meet healthcare needs. During the first six months, individuals reported neglecting health in favor of food, leading to skipped medications and reliance on unqualified medical practitioners or traditional remedies. By the six-month mark, these detrimental health behaviors persisted, with additional evidence of food insecurity. The regression analysis indicated that both adults and children from fixed-income households experienced higher rates of malnutrition compared to their peers. The study concludes that the government should provide emergency support for these families, enhance the health insurance sector, and consider revising workers' salaries to mitigate the negative effects of inflation on health and wellbeing.

Keywords: fuel subsidy removal, inflation, health, fixed-income earners, medical.

88 COMPARATIVE STUDIES ON THE LARVICIDAL EFFICACY OF AZADIRACHTA INDICA AND CALOTROPIS PROCERA AGAINST HOUSEFLY (*MUSCA DOMESTICA*)

^{*1}Bobi, A.H., ³ Bandiya, H.M., ³ Kanya, D.Y., ³ Keta, J.N., ³ Attah, D.D., ³ Ukatu, V.E. and ⁴ Liman B.

¹Department of Biological Sciences (SPRS Ibeta Centre), Ibrahim Badamasi Babangida University, Lapai, Nigeria.

²Department of Biological Sciences, Usmanu Danfodiyo University, Sokoto, Nigeria.

³Department of Animal and Environmental Biology, Kebbi State University of Science and Technology, Aleiro, Nigeria.

⁴Department of Biological Sciences, Shehu Shagari College of Education, Sokoto, Nigeria.

Abstract

Housefly is a significant domestic pest that causes nuisance. The use of insecticides is discouraged in control of household; subsequently, alternative management approaches are unavoidable. The present study investigated the effects of two different plant extracts, i.e., *Azadirachta indica* (Neem) and *Calotropis procera* (Sodom apple), against some biological

parameters of honey. Five different concentrations (100 ppm, 200 ppm, 300 ppm, 400 ppm, and 500 ppm) of the extracts were mixed with a larval diet prepared through the mixing of wheat bran, yeast, and dried milk powder. The results showed significant differences ($P > 0.0001$) for larval mortality. Maximum larval mortality (95.00%) was recorded for *A. indica* methanolic leaf extract at 500 ppm, followed by *C. procera* ethanolic root extract at the same concentration, respectively. The least mortality (1.7%) was observed in the 100 ppm aqueous root extract of *C. procera*. In the case of larval and pupal duration, non-significant differences were observed among plant extracts. The study results showed that tested plant extracts had significant potential for inhibiting some biological parameters of housekeeping. The neem and Sodom apple extracts can possibly be used to manage household. Conversely, advance research on larval and adult mortality is required.

Key Words: Housefly, Azadirachta, Mortality, Extract.

89 MICROFINANCE AND POVERTY ALLEVIATION: COLLABORATIVE STRATEGY FOR SUSRAINABLE DEVELOPMENT IN RURAL AFRICA

Saifullahi Lawal

Katsina State Institute of Technology and Management,
Katsina-Nigeria

Email address: saifullahi.lawal@ksitm.edu.ng,

Abstract

Housefly is a significant domestic pest that causes nuisance. The use of insecticides is discouraged in control of household; subsequently, alternative management approaches are unavoidable. The present study investigated the effects of two different plant extracts, i.e., *Azadirachta indica* (Neem) and *Calotropis procera* (Sodom apple), against some biological parameters of honey. Five different concentrations (100 ppm, 200 ppm, 300 ppm, 400 ppm, and 500 ppm) of the extracts were mixed with a larval diet prepared through the mixing of wheat bran, yeast, and dried milk powder. The results showed significant differences ($P > 0.0001$) for larval mortality. Maximum larval mortality (95.00%) was recorded for *A. indica* methanolic leaf extract at 500 ppm, followed by *C. procera* ethanolic root extract at the same concentration, respectively. The least mortality (1.7%) was observed in the 100 ppm aqueous root extract of *C. procera*. In the case of larval and pupal duration, non-significant differences were observed among plant extracts. The study results showed that tested plant extracts had significant potential for inhibiting some biological parameters of housekeeping. The neem and Sodom apple extracts can possibly be used to manage household. Conversely, advance research on larval and adult mortality is required.

Keywords: Housefly, Azadirachta, Mortality, Extract.

90 MALTHUSIAN POPULATION PROBLEM AND ITS IMPLICATION ON ECONOMIC GROWTH IN THE CENTRAL SENATORIAL DISTRICT OF CROSS RIVER STATE, NIGERIA

Agbor, Louis Friday

Department of Social Studies Cross River State College Of Education, Akamkpa.

Email address: pastoragborlouis@gmail.com

Abstract

This study examined Malthusian population problem and its implication on economic growth in Central Senatorial District of Cross River State, Nigeria. To achieve the purpose of this study, three research questions were formulated to guide the study. The subject of this study was made up of One hundred (100) respondents who were randomly selected from five (5) communities for this study and through the use of Simple Random sampling techniques. The main instrument that was used for data collection was the questionnaire. The findings revealed that persistent population growth can force farmers and fishermen to over-exploit fragile ecosystems with damaging results, It can also increase pressures on local infrastructure and services and could lead to competition on land use which could result in intra and inter communal crisis. Based on the findings of this research work, some recommendations were made; (1) Proper enlightenment campaigns should be carried out regularly to educate people on the effect of having a number of children you cannot manage. (2) People should be educated on the importance of birth control and its measures. (3) Government should help by providing economic resources to increase the standard of living of the people.

Keywords: Malthusian, Population, Economic Growth.

91 STATE AND NON-STATE ACTORS' PARTNERSHIP IN CURBING IRREGULAR INTERNATIONAL MIGRATION FOR SUSTAINABLE ECONOMIC DEVELOPMENT: OPPORTUNITIES AND POLICY OPTIONS FOR AFRICAN COUNTRIES

Nanya Ladon

School of Arts and Social Sciences, Department of Economics, College of Education, Gindiri, Plateau State, Nigeria Phone number:

Abstract

This paper explores the partnership between state and non-state actors in addressing irregular international

migration as a means to achieve sustainable economic development in Africa. It emphasizes that international migration is a complex phenomenon that significantly impacts the development of countries of origin, transit, and destination. Using a qualitative approach, the study identifies several causes of irregular migration in Africa, including rising insecurity, economic hardship, porous borders, institutional inefficiency, and regional migration laws such as the ECOWAS protocol. The impacts of irregular migration are severe and include human trafficking, health risks, the proliferation of small arms, loss of life, insurgency, and the rise of militia groups. The study highlights various opportunities for improvement, including the development of better international migration policies, enhanced border security, resource mobilization, human capacity building, international cooperation, information sharing, and the economic empowerment of local communities. However, challenges such as national political dynamics, poor coordination among stakeholders, limited financial resources and expertise, extensive borders, insecurity, endemic corruption, restrictive laws, and unreliable data on irregular migrants hinder effective interventions. The paper concludes that collaboration between state and non-state actors is crucial for curbing irregular migration and fostering sustainable economic development in Nigeria. Recommendations include clearly defining and securing borders, prioritizing good governance, strengthening regional migration laws, increasing public awareness of the dangers of irregular migration, and providing rehabilitation and integration for victims.

Keywords: Non-State Actors, Irregular Migration, Sustainable Development, Economic

92 THE IMPACT OF FOREIGN AID ON CORRUPTION IN UGANDA (2005-2023)

***Ogwal Emmanuel and Abdisalam Mohamed Mahdi**

College of Economics and Management (MEPP), Kampala International University, Uganda

**Corresponding author's email address:*

emmanuel.ogwal@studmckiu.ac.ug,

ORCID iD: 0009-0003-3274-5277

ORCID <https://orcid.org/0009-0003-3274-5277>

ogwalemmablessed@gmail.com mahdi.abdisalam@studmckiu.ac.ug abdisalam.m.mahdi@gmail.com

Abstract

Corruption remains a significant challenge in Uganda, raising concerns about the role foreign aid plays in influencing it. This study investigates the impact of foreign aid on corruption in Uganda from 2005 to 2023. The objectives include analyzing trends in foreign aid and corruption, assessing the impact of foreign aid on corruption, and examining the causal

relationship between these variables. To achieve these objectives, the study employs trend analysis, ordinary least squares (OLS) regression, and Granger causality tests. The findings indicate that corruption in Uganda declined from 2005 to 2014 but stabilized at moderate levels by 2023. Concurrently, foreign aid increased steadily, peaking in 2020, with notable fluctuations due to global events like the COVID-19 pandemic. The regression analysis shows that foreign aid does not have a significant direct impact on corruption levels, while GDP growth significantly contributes to higher corruption. The Granger causality test reveals that changes in corruption influence changes in foreign aid, suggesting that corruption affects aid flows to Uganda, but no evidence indicates that foreign aid directly affects corruption. The study concludes that while foreign aid does not directly contribute to corruption, it is affected by governance practices within the country. To enhance the effectiveness of foreign aid, the Ugandan government should prioritize anti-corruption reforms, improve transparency in aid-related projects, and strengthen governance frameworks. Additionally, donor agencies are encouraged to establish conditionalities focused on promoting accountability and reducing corruption in aid-receiving sectors.

Keywords: Foreign Aid, Corruption, Uganda, Economic Growth, Governance.

93 EFFECT OF AUDIT COMMITTEE ATTRIBUTES ON FINANCIAL PERFORMANCE OF LISTED INDUSTRIAL GOODS FIRMS IN NIGERIA

Titus Wuyah Yunana

*Department of Economics, Nigeria Police Academy, Wudil
Kano, Nigeria*

Email address: titusyunana@polac.edu.ng

Abstract

This study assessed the effect of audit committee attributes on the financial performance of industrial goods firms in Nigeria. The Ordinary Least Squares (OLS) multiple regression technique of data analysis was used in the sample of 13 firms for a period of 5 years (2017-2021), using secondary data. The study found a significant positive relationship between financial performance (ROA) and the attributes of the audit committee. That is, the attributes of the audit committee of the industrial goods firms (especially meetings and financial expertise) have significantly improved the financial performance of the firms during the period of the study. The study also found that the size of the audit committee has not significantly influenced the financial performance of the firms. The study recommends that the regulators should encourage the independence and the inclusion of the financial experts in the audit

committees of the industrial goods firms in Nigeria. Moreover, the members of the audit committee and the board of directors of the firms should increase efforts towards improving those operational aspects that could maximize profitability.

Keywords: Audit Committee, Return on Assets, Agency Theory.

94 ASSESSING ECONOMIC PROSPECTS AND TRADE CHALLENGES NEXUS IN LANDLOCKED EAST AFRICAN COUNTRIES: OPPORTUNITY SEARCH FOR UGANDA

Peter Chika Uzomba

*Department of Economics, Federal University Lokoja, Kogi
State, Nigeria*

Department of Economics, Islamic University in Uganda

*Email address: peter.uzomba@fulokoja.edu.ng /
uzombapc@gmail.com*

Abstract

In every macroeconomic sphere, economic prospects provide a snapshot of the future economic environment, influencing decisions at all levels of society. Positive economic prospects typically lead to increased investment, higher employment, and improved living standards, growth, stability, and overall economic health. However, these benefits have not been well reaped by the Eleven Landlocked East African Countries (ELEACs), which raises a concern for the economic development quest of the region and threatens the potentials and veracity of trade. Consequently, this study assesses economic prospects and trade challenges nexus in landlocked East African countries with the view to unraveling possible opportunities in Uganda. In doing this, economic prospects are construed as foreign direct investment (FDI) inflows, trade competitiveness (export-import competitiveness), and inflation rate. Trade challenges are conceptualized as exchange rate volatility and trade credit. Secondary data would be sourced from the World Bank Data Base and Central Banks of the eleven countries; the data would be structured in a panel dimension, and descriptive and econometric methods of auto-regression distributive lag (ARDL) and generalized method of moment (GMM) would be utilized for data analysis in consideration of the unit root results. From the analysis, it would be expected that economic prospects would impact trade challenges in the region, and relevant recommendations would ensue from the findings.

Keywords: Economic Prospects, Trade Challenges, ARDL, GMM, ELEACS, Uganda

95 EMOTIONAL INTELLIGENCE AND WORKPLACE PROACTIVENESS IN FIRST BANK PLC CALABAR, NIGERIA

***¹Ukaidi Chris U.A, ²Mbang, Uduak Bassey,**

³Ukaidi, Evelyn Ugonna, ⁴Kazibwe Sophia

¹*College of Economics and Management, Kampala International University, Uganda*

²*Arthur Jarvis University, Akpabuyo, Calabar, Nigeria*

³*Department of Business Management, University Of Calabar, Nigeria*

⁴*Department of Political and Administrative Studies, Kampala International University, Uganda*

*Corresponding author's email address: ukaidichris@kiu.ac.ug

Abstract

Emotional intelligence (EI) accounts for emotions and social problem solving, encompassing a constellation of emotional disposition and self-perception that seem to affect workplace proactiveness. EI is an imperative tool to be considered in an organization's behavior. The present study is an attempt to investigate the impact of emotional intelligence on workplace proactiveness: A study of First Bank OLC Calabar, Nigeria. The hypothesis was framed and tested using single linear regression models with the aid of computers using Eviews 9. At a confidence interval of 95%, that is, at a percentage value that is less than or equal to 0.05. Findings proved that emotional intelligence has a significant impact on workplace proactiveness. The study concluded that emotional intelligence should be inculcated in the Human Resource Management Department as part of the training and development policy.

Key Words: Emotional Intelligence, Self-Regulation, Individual Dynamics, Workplace

96 OCCUPATIONAL STRESS IN PRIVATE AND PUBLIC ORGANIZATIONS: A STUDY OF EMPLOYEES IN JUBA SOUTH SUDAN

***¹Ukaidi, Chris U.A, ²Ukaidi, Evelyn Ugonna,**

³Muritti Irenne Wanjiru and ³Wabomba Kadili

¹*College of Economics and Management, Kampala International University Uganda*

²*Department of Business Management, University of Calabar Nigeria*

³*Kampala International University, Uganda*

*Corresponding author's email address: ukaidichris@kiu.ac.ug

Abstract

This paper seeks to investigate occupation stress in the private and public sectors in Juba, South Sudan. The study is essentially a correlational study. A randomly selected sample of 20 private and public organizations was evaluated. The alpha reliability of the scale was calculated, which was significant. Results show that employees's relationships were not strongly correlated. There is more stress in the software sector.

Pharmaceutical companies, telecommunications sectors, banks, welfare organizations, and less stress in the service sector, respectively. Findings revealed that other sociocultural factors, apart from work-related issues, contribute to stress in the workplace. The paper concluded that the government should formulate stress-free policies, among other recommendations.

Keywords: Occupational Stress, Private and Public Sector, Depression, Organization

97 TEACHER'S TEACHING EXPERIENCE DURING COVID-19: A CASE STUDY OF KAMPALA DISTRICT, UGANDA

Tyem, Abraham Istifanus and Muduutdait Rita

Department of Library Information Science, College of Education P.M.B. 01000 Gindiri, Plateau State, Nigeria

Email address: abraham@gmail.com

Abstract

Technology management is critical in research, teaching, and learning and is a necessary tool in university libraries. Organizational support (information support, emotional support, social network support, and tangible support) are the bases for technology management in university libraries. However, literature has established a low extent of technology management by library staff. Studies have independently linked organizational support influence on technology management of library staff in university libraries in Lagos and Ogun States, Nigeria. A survey research design was adopted for the study. The study population comprised 353 library staff in 22 public and private university libraries in Lagos and Ogun States, Nigeria. The researchers used total enumeration to collect information from the respondents. A structured and validated questionnaire was used for data collection. Four styles of larker tables were used. The Cronbach alpha coefficient for the constructs ranged from 0.70 to 0.95. Respondent's rate was 299 (90.1%) Data was analyzed using descriptive and inferential (simple regression) statistics. The findings of the study showed that organizational support had a positive and significant influence on technology management (R^2 (0.295) = 0.867, $P < 0.05$) of library staff in university libraries in Lagos and Ogun States, Nigeria. The study concluded that organizational support is an essential base that can contribute to the technology management of library staff in Lagos and Ogun States, Nigeria. The study recommended that the management of universities in Lagos and Ogun states, Nigeria, should sponsor their library staff to seminars, workshops, and conferences in which they can build their capacities to use technology and manage it. Also, library management in university libraries in Lagos and Ogun states, Nigeria, should provide tangible support and social network support for technology management.

Keywords: Library, Organizational Behavior, Lagos, Management.

98 SEX FOR MARKS: ITS' SOCIAL IMPLICATION ON THE GROWTH AND DEVELOPEMNT OF TERTIARY EDUCATION IN NIGERIA

Ahmed Adamu Chiroma

Nigerian Defence Academy, Kaduna-Nigeria

Email address:

ahmedchiroma.ac@gmail.com,

Abstract

The right to quality education is a fundamental human right engraved in the constitutions of most independent countries. In pursuance of this right, students, especially females in tertiary institutions globally, had become sex prey in the hands of lecturers in exchange for marks or illicit marks and grades awarded through illicit sex. The Nigerian experience appears worrisome, as some lecturers who should be role models indulged in this illicit act, taking undue advantage of them by promising good scores and grades to students in the examination. Female students who are lazy and weak academically sometimes willingly offer their bodies in exchange for marks in Nigerian schools. This rising phenomenon portends grave danger and harm to the realization of the goals of quality education in Nigeria. It is against this background that this paper examines the phenomenology of sex for marks and its social implication on the growth and development of tertiary education in Nigeria. The paper employs multiple factor theory of crime and other antisocial behaviors to provide a thorough understanding of the subject matter. It adopts an explanatory design with data drawn from secondary sources and a qualitative method of data analysis. Findings reveal the major causes of sexual harassment in Nigeria's tertiary education system, which include, among others, laziness, culture of silence, inability to suppress sexual desire (libido crisis), mode of dressing, decline in cultural and ethical values, and fear of failure of tests and examinations. The paper contends that psychological trauma, reduction in the standard and ranking of Nigeria's tertiary institutions, increase in the rate of sexually transmitted diseases (STDs) among victims, violation of the fundamental human right of the victimized students, and loss of confidence of employees/organizations employing graduates from universities with reported cases of sex for marks are some of the social implications of the act on the growth and development of Nigeria's education. Thus, the paper strongly recommends a functional legal framework to check and punish all forms of sexual harassment in Nigeria's tertiary education system with a view to mitigating the menace. Similarly, sensitization of

students on mode of dressing and the proper channel of communicating cases of sexual harassment, abolishment of the master-servant policy that gives a lecturer absolute authority over the award of marks, and re-enforcement of the values of integrity, honesty, transparency, ethical re-organization, as well as hard work, are also suggested as measures to curb the crime of sex for marks in Nigerian tertiary institutions.

Keywords: Sex, Marks, Standard, Growth, Development, Tertiary Education, Nigeria

99 TRENDS ANALYSIS OF REPORTED CASES OF TRACHOMA IN ISA LOCAL GOVERNMENT AREA OF SOKOTO STATE, NIGERIA

Lauwali Barau

Department of Geography, Faculty of Social and Management Sciences, Sokoto State University, Sokoto

Email address: lauwali.barau@ssu.edu.ng

Abstract

Trachoma is widely considered a disease of poverty and is caused by many socio-economic and environmental factors. In light of the above, this study examines the temporal distribution of the reported cases of trachoma in the study area. It used both qualitative and quantitative methods. Two sets of data were used: one was obtained from the archives of the general hospital in Isa town (2013-2022), and the other was through an in-depth interview involving the head and two other health officials in the study area. A line graph was used to show the trends, and content analysis was employed to highlight the major causes of trachoma. The trends of the reported trachoma cases records across the study area reveal that in 2013, the cases were very low up to 2016, but they increased in 2017, shot up in 2018, and started falling in 2019 as well as falling drastically in 2022. The result also implies that there is a significant level of variation between the years in terms of reported and treated cases of trachoma at the time of this research. The high reported cases in 2018 were attributed to the massive treatment of the disease sponsored by one of the richest people in the study area, as narrated by the officials during the in-depth interview at the general hospital. The study recommends that there is a need for massive awareness campaigns, and the government should encourage people to use different methods of waste handling and disposal; this will help to reduce cases of trachoma.

Keywords:

Trachoma, Sokoto, Poverty, Temporal Distribution.

100 THE VALUE OF INDIGENOUS LANGUAGE IN THE DEVELOPMENT OF SCIENCE AND TECHNOLOGY

Mustapha Abubakar Sadiq

Federal College of Education, Katsina, Nigeria.

Email address: mustapha.abubakarsadiq@fcekatsina.edu.ng

Abstract

In a world filled with the product of scientific inquiry, scientific literacy has become a necessity for everyone because it is indispensable to achieving the technological development of any nation. Everyone needs to use scientific information to make choices that arise every day. Everyone needs to be able to engage intelligently in public discourse and debate important issues involving science and technology. Also, everyone deserves to share the excitement and personal fulfillment that can come from understanding and learning about the natural world. On the other hand, the importance of language in every aspect of life cannot be overemphasized; it is synonymous with communication among individuals, societies, organizations, and within the institutions of government. Language, therefore, cannot be neglected in any human development because it is a mirror and lamp for thought, as well as the central vehicle for civilization and development. The focus of this paper is to look at the place and value of indigenous languages in the development of science and technology. It also defined science, technology, and indigenous languages and pointed out some of the problems of indigenous languages and their remedies.

Keywords: Indigenous Language, Science, Technology, Development.

The welfare state continues to assume prominence throughout the Global South, although practitioners and academics continue to disagree on the ideal level of state involvement in economic management. While the literature on private sector contributions to economic development has been well established, little research has been conducted to investigate government intervention measures to stimulate the private sector through tax rebates. This study undertakes a case study approach to examine the impact of the Tax Exemption Policy on the development of SMEs in Cross River State between 2015 and 2022 by investigating the magnitude of the effect of the indicators of the policy (tax credits, reduced tax, and tax break) and SMEs development indicators (employability, profit margin, and surge of new SMEs). The Keynesian Economic Theory and the Resource-Based View (RBV) Theory were used as the study's theoretical framework. The mixed-methods research design was used. Data collected for the study were generated through primary and secondary sources. The population of the study is 617. A sample of 249 was used. The quantitative data was analyzed using simple linear regression analysis, while the qualitative data was analyzed using descriptive evaluation. The result of the analysis indicates that there was no significant impact of tax credits, reduced tax, and tax breaks on the employability, profitability, and surge of SMEs in Cross River State. The study recommends tax assessments based on the profit and sales of SMEs, harmonization of taxes to avoid multiple taxation by government agencies, and provision of low-interest loans to boost SMEs' development.

Keywords: Fiscal Policy; Keynesian Economic Theory; Resource-Based View Theory; Small and Medium Scale Enterprises (SMEs); Tax Exemptions; Taxation

101 TAX EXEMPTION POLICY ADMINISTRATION AND THE DEVELOPMENT OF SMALL AND MEDIUM SCALE ENTERPRISES (SMEs) IN CROSS RIVER STATE, NIGERIA, 2015-2022

^{*1}Inakefe Gabriel Inakefe, Bassey, ²Virtue Uduak and ³Amadi, John Onyekachi

¹Department of Public Administration, Faculty of Management Sciences, University of Calabar, Calabar-Nigeria.

**Corresponding author's email address:*

inakefegabriel@unical.edu.ng

²Department of Public Administration, Faculty of Management Sciences, University of Abuja, Nigeria.

³Department of Public Administration, Faculty of Management Sciences, University of Nigeria

Email address: amadijohn00@gmail.com

Abstract

102 MICROFINANCE AND INNOVATION: EXAMINING THE RELATIONSHIP BETWEEN ACCESS TO FINANCE AND ENTREPRENEURIAL VENTURES IN EMERGING ECONOMIES

Ja'afar Garba Ya'u Gwarmai

*Department of Micro-finance and Enterprise Development,
Federal Polytechnic Kobo, Kano State, Nigeria.*

Email address: gwarmaij@gmail.com

Abstract

Microfinance has emerged as a powerful tool for fostering entrepreneurship and economic development in emerging economies by providing access to financial services to individuals who are traditionally excluded from the formal banking sector. This research study aimed at exploring the relationship between microfinance and innovation, particularly focusing on how innovation

mediates access to finance relationship influences on entrepreneurial ventures in emerging economies. The study adopts a quantitative methods approach; simple random sampling techniques are employed to sample 260 from the total population of 800. Quantitative data are collected through surveys administered to microfinance clients and entrepreneurs (SMES holders) in selected emerging economies. The surveys gathered information on the demographics of participants, their access to microfinance services, the types of entrepreneurial activities pursued, and the level of innovation exhibited in their ventures. Additionally, it was found that the extent to which access to microfinance enables entrepreneurs to engage in innovative activities reveals that there is a relationship between access to finance and entrepreneurial ventures in emerging economies; the relationship was also examined to be mediated by innovation. positively It was also found that there is an impact of access to finance on entrepreneurial ventures in emerging economies. It is concluded that innovation plays an important role in having access to finance and also the emerging economies.

Keywords: Microfinance, Innovation, Entrepreneurship, Emerging Economies, Financial Inclusion, Economic Development.

103 INFORMATION MANAGEMENT SYSTEM AS PANACEA FOR BUSINESS DECISION MAKING AND STRATEGY DEVELOPMENT IN KATSINA CENTRAL MARKET

^{*1}Hayatu Khaleel Bako and ²Mansur, Shehu

¹Department of Business Informatics, Katsina State Institute of Technology and Management & ²Department of Educational Foundation, University of Abuja

*Corresponding author's email address:

hayattkhaleel@gmail.com & elmensoorsb@gmail.com

Abstract

Information management system (IMS) is regarded as the process of collecting, storing, and disseminating information to support decision-making and strategy development. An effective IMS enables businesses to identify opportunities, threats, and trends, making informed decisions and developing effective strategies. Therefore, in the context of Katsina Central Market, IMS is crucial for businesses to understand customer needs, track sales and revenue, and monitor inventory and supply chain. This study examines the role of IMS in business decision-making and strategy development in Katsina Central Market. The study adopts a mixed-methods approach, combining both qualitative and quantitative data collection and analysis methods. The research population consists of businesses operating in Katsina

Central Market. A sample of 20 businesses is selected using a stratified sampling technique. Four business owners were selected from each business selected (4 x 20 = 80). Data was collected through four-point (Likert) scale questionnaires and interviews. The data is analyzed using descriptive statistics (simple percentages) and thematic analysis. The findings from the study revealed that an effective IMS is crucial for businesses in Katsina Central Market to make informed decisions and develop effective strategies. The majority of businesses (80%) agree that IM is essential for understanding customer needs and preferences. However, only a few businesses (20%) have implemented IMS, and most businesses (70%) rely on manual methods for data collection and analysis. The study recommends the implementation of IMS, regular market research and analysis, data analytics training for businesses, the establishment of a market information center, and collaboration between businesses and market associations to share information and best practices.

Keywords: Information management systems, Market strategies, Businesses, Data analytics.

104 ASSESSMENT OF DIGITALIZATION TOOLS ADOPTION AND UTILIZATION AMONG ACADEMIC STAFF OF PUBLIC POLYTECHNICS IN NIGERIA

Mohammed Rasheed Aliyum

Abubakar Tatari Ali Polytechnic, PMB.0098 Wuntin Dada,
Jos Road Bauchi, Bauchi State,

Email address: mohammedrasheedaliyu@gmail.com
mohammedaliyu.sms@atapoly.edu.ng,

Abstract

Nigerian polytechnics have not fully utilized available digital tools in spite of maximum adoption by other educational institutions globally, global competition, and the newly introduced national polytechnic policy on digitalization of all polytechnic activities. This is due to limited resources available, inadequate infrastructural facilities, a lack of digital literacy, inadequate power supply, and resistance to changing attitudes. This study aims to investigate the adoption and utilization of digital tools among lecturers of public polytechnics in Nigeria. The study adopted a quantitative approach, using a structured questionnaire with 121 academic staff of Abubakar Tatari Ali Polytechnic, Bauchi, Nigeria, as a sample. The data collected were analyzed using SPSS and PLS software. The findings reveal that digital tools were not adequately available, digital awareness among lectures is inadequate, they lack inadequate training and skills, poor internet services, inadequate power supply, and a nonchalant attitude toward digitalization adoption. The study recommends the need for continuous

maintenance and upgrading of existing digital facilities, training of lecturers, and awareness creation through effective communication mediums for maximum utilization and to improve teaching and learning among public polytechnics in Nigeria.

Keywords: digital, tools, adoption, utilization, academic staff, polytechnic.

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RECONCILABILITY OF SOCIO-ECONOMIC DEVELOPMENT AND ENVIRONMENTAL CONSERVATION IN KANO NORTH

Muhammad Ado Muhammad

Microfinance and Enterprise Development Department, Federal Polytechnic Kano Nigeria

Email address: Muhammadado098@gmail.com

Abstract

Are the achievement of sustainable development and the improvement of environmental standards mutually exclusive in the 21st century? Is it possible to combine the two? This study is an effort to mitigate the mutual exclusiveness of the two policy areas and asks for the necessity and possibility to combine the two with a reference to Sub-Saharan Africa (SSA). After describing the historical, geographical, and climatic background of SSA, the negative effects of global warming and local environmentally harmful practices are discussed. Subsequently, the appreciated development measures for the region are elaborated in order to understand their compatibility with regards to improving the environment. It is concluded that to change the dependency on agriculture, the economy needs to be restructured towards technologies. Furthermore, it is found that there is a direct link between global warming and economic efficiency. Theories, which imply that some regions are simply too poor to be green, are investigated and rebutted by another theory, which states that it is indeed possible to industrialize in an environmentally friendly way. It follows that environmental and development measures are interconnected, equally important, and can be reconciled. The paper finally concludes that the threat posed by global warming and the previously practiced environmentally harmful local measures might be so pressing that it may first and clean up later approach.

Keywords: Climate Change, Global, Warming, Pollution, Sustained Development, Development Measures, Environmental Measures

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EMPLOYEE ENGAGEMENT AND PERFORMANCE OF NON-GOVERNMENT ORGANIZATIONS IN KAMPALA

^{*1}Miir Anifa, ²Emmanuel Kiweewa, ³Wandiba

Augustine

Kampala International University

**Corresponding author's email address:*

anifa.miir@studmc.kiu.ac.ug

Abstract

Employee engagement significantly impacts organizational performance and effectiveness globally. Positive engagement fosters a sense of belonging and commitment, leading to higher productivity, innovation, and job satisfaction, whereas mistreating employees diminishes their commitment and overall contribution. Engaged employees are emotionally and intellectually connected to their jobs, colleagues, and organization, which motivates them to put in extra effort. This study aimed to investigate the implementation of employee engagement strategies in non-governmental organizations (NGOs) in Uganda and their effect on organizational performance. A literature survey was conducted to identify key engagement processes, followed by an empirical survey to assess their application in Ugandan NGOs. Findings revealed that employee engagement is poorly managed in these organizations. However, the study confirmed a positive linear relationship between employee engagement and organizational performance, suggesting that better engagement strategies can significantly improve outcomes such as productivity, customer satisfaction, revenue growth, and profit margins. It is recommended that NGOs in Uganda prioritize creating a work environment where employees feel valued, connected, and have clear career paths to enhance their commitment and organizational success.

Keywords: Employee Engagement, Organizational Performance, Non-Government Organizations.

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NON-GOVERNMENT ORGANISATIONS' AID FUNDED PROJECTS AND VALUE FOR MONEY IN UGANDA

Kaijabwango Clare

Monitoring, Evaluation and Research Consultant Advanced Communication Ltd

Email address: clare.mubumusa@gmail.com

Abstract

The research examined the value for money (VfM) that non-government organizations' aid projects bring to the development sector in Uganda. This involved the assessment of the effectiveness, relevance, economy, and efficiency of three concluded NGO aid projects. Adequate assessment dictated the use of a mixed methods approach: a cross-sectional survey, the Most Significant Change technique, a retrospective cost analysis using the Follow the Money method, and unit cost analysis using a self-designed form. NGO aid projects were found not to deliver value for money. The

aid projects were found to be ineffective, uneconomical, inefficient, and superficially relevant. Drawing from the research conclusion on VfM, the research results raise implications for theory and practice. The implications relate to the incongruence between the Neoliberalism theory of pro-NGO arguments, the limitations of the functional approach commonly used to evaluate NGO projects, and lastly, the disconnect between the 'project' approach and the priorities in the 2030 Agenda. Inherent in the implications lays an opportunity for interdisciplinary work between the economics discipline and development practice to develop a Value for Money toolkit that can be used to project VfM ex-ante project funding. This kind of toolkit can go a long way in better project planning and resource maximization as a path to achieve the commitments in the 2030 agenda.

Keywords: Aid and Value for Money, Southern NGOs, Development Effectiveness, Civil Society, and NGO Performance.

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SECTORAL ANALYSIS OF GOVERNMENT EXPENDITURE AND ECONOMIC GROWTH IN NIGERIA: THE IMPACT OF AGRICULTURAL, SERVICE AND INDUSTRIAL SECTORS

^{*1}Evelyn Nddi Dania, ²Kashiari Esther Dibia, ³Kwode E. Israel, ⁴Franklin Muhereza, T. and ⁵Emmanuel Kiweewa

¹College of Economics and management, Kampala International University, Uganda, ²Department of Economics, Faculty of Social Sciences, University of Delta Agbor, ³Admiralty University of Nigeria ^{*}Corresponding author's email address: dania.ndidi@kiu.ac.ug

Abstract

This study investigates the sectoral impact of government expenditure on economic growth in Nigeria from 1970 to 2015. Using ordinary least squares (OLS) regression, unit root, co-integration tests, and the error correction mechanism (ECM), the research explores the relationship between government expenditure across agricultural, industrial, and service sectors and Nigeria's economic growth. The findings reveal that macroeconomic variables exhibit a long-term relationship with sectoral outputs and economic growth. Government expenditure on the service sector positively, but insignificantly, impacts economic growth. In contrast, total government expenditure on the industrial sector has an inverse and insignificant effect on economic growth in both the short and long term. However, expenditure on the agricultural sector and governance costs demonstrate a direct and significant influence on growth. The significance of governance expenditure implies that enforcing institutional constraints to reduce

rent extraction can channel more public funds toward essential sectors, fostering economic growth. The study concludes that effective management of capital and recurrent expenditures in the agricultural, industrial, and service sectors is essential to enhance Nigeria's productive capacity and drive overall economic growth.

Keywords: Government Expenditure; Economic Growth; Agricultural Sector; Industrial Sector

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A STRUCTURAL MODEL OF THE DETERMINANTS OF FINTECH USE AMONG ISLAMIC DUES (ZAKAT) GIVERS IN KAMPALA: THE MEDIATING EFFECT OF INTENTION

^{*1}Namungo Hamzah , ²Kibuuka Muhammad, ³Kwagala Milly, ³Jude Bassey, ³Hamidah Nabawanuka, ⁴Friday Edeh, ⁵Ainebyoona Christine

¹Department of Finance and Accounting, College of Economics and Management, Kampala International University, Uganda.

²Department of Economics and Statistics, College of Economics and Management, Kampala International University Uganda.

³Department of Business Management, Kampala International University Uganda.

⁴Department of Economics and Statistics, College of Economics and Management, Kampala International University Uganda.

⁵Department of Business Management, College of Economics and Management, Kampala International University Uganda.

^{*}Corresponding author's email address:

hamzah.namungob@kiu.ac.ug <mailto:a.bafiane@ump.ac.ma>

Abstract

Financial technology (FinTech), which entails the utilization of internet-based infrastructure to facilitate payments, has gained significant traction in Uganda and has been adopted across various sectors, including government, private industry, and the NGO sector. Despite its accessibility and usage among Muslim donors in Kampala, online-generated donations have remained relatively low, leading to suboptimal collections. This shortfall in revenue has severely hindered the outreach efforts of Muslim humanitarian initiatives in Kampala, exacerbating issues such as high primary school dropout rates, increased instances of begging, and petty theft at mosques. Consequently, there is a pressing need to investigate the factors that influence the intention to use fintech to pay Islamic donations and to identify strategies for stimulating its uptake in the future. The objective of this study was to examine the mediating effect of intention on the relationship between perceived ease of use, perceived usefulness, facilitating conditions, and actual fintech usage. Employing a quantitative approach, this study utilized stratified sampling technique to collect data from 374 Muslim donors through a

questionnaire. The collected data was then analyzed using PLS-SEM. The findings of this study revealed that intention serves as a mediator between perceived ease of use, perceived usefulness, facilitating conditions, and fintech usage among Muslim donors in Kampala. This research significantly contributes to the existing body of knowledge and informs policy formulation regarding the determinants of fintech use in Uganda. It is recommended that future studies employ alternative research designs to validate or further explore the findings of this study.

Keywords: intention Fintech, ease of use, usefulness, facilitating condition.

110 INTERNATIONAL CAPITAL FLOWS AND ECONOMIC DEVELOPMENT IN SUB-SAHARAN AFRICA

Dayo Benedict Olanipekun, Friday Edeh, Derrick Ssekajugo and Franklin T. Muhereza

Department of Economics and Statistics

College of Economics and Management, Kampala International University, Uganda

**Corresponding author's email address and phone number:*

dayo.olanipekun@kiu.ac.ug

Abstract

In the sub-Saharan African (SSA) countries, the indexes of economic development have been generally low. Evidence from the United Nations' Human Development Report shows that most of the sub-Saharan African countries fall within the category of low human development, with low revenue and poor funding identified as challenges to their developmental progress. Hence, this study examines the effects of international capital flows on economic development in sub-Saharan African countries using four dimensions to measure development. The economic development measurements used include the human development index, life expectancy at birth, average education, and per-capita income. A two-step system generalized method of moments was employed using a sample of 42 SSA's countries from 1990 to 2019. Findings show that foreign direct investment promotes economic development. However, foreign aid could be detrimental to development. The effect of personal remittances on economic development is not statistically significant. Evidence from other measures of development shows that FDI promotes life expectancy, average years of schooling, and per capita. Foreign aid has a positive effect on life expectancy and standard of living, while personal remittances affect per capita income positively. Government policies towards economic development should be such that they attract FDI. JEL Classification: B27, F35, F63

Keywords: Life Expectancy At Birth; Mean Of Years Of Schooling; Per Capita Income

111 THE SHORT-RUN AND LONG-RUN RELATIONSHIP BETWEEN FOREIGN DIRECT INVESTMENT AND THE BALANCE OF TRADE IN UGANDA

Abdisalam Mohamed Mahdi and Olanipekun Dayo Benedict

College of Economics and Management, Department of Economic policy and planning

Kampala International University, Uganda

**Corresponding author's email address: mahdi.abdisalam@studmc.kiu.ac.ug / abdisalam.m.mahdi@gmail.com*

Abstract

Available statistics reveal that Uganda's international trade has been characterized by several episodes of deficits in the last three decades. This study investigated the long-run and short-run relationship between foreign direct investment (FDI) and Uganda's balance of trade from 1990 to 2021. The primary objective was to explore the relationship between FDI and the balance of trade in both the short and long run. Econometric techniques such as the Augmented Dickey-Fuller (ADF) test were used to assess stationarity, while the Autoregressive Distributed Lag (ARDL) model was employed to estimate both short- and long-run relationships. The analysis incorporated Error Correction Mechanisms (ECM) and Conditional Error Correction Regression to capture the dynamics. The findings indicated non-stationarity in the variables and revealed a significant relationship between FDI and the trade balance in both the short and long run. The study recommended directing FDI towards manufacturing to reduce imports, expanding free trade agreements to attract more FDI, stabilizing the exchange rate, and fostering an investment-friendly environment to improve the balance of trade.

Keywords: Foreign Direct Investment, Balance of Trade, ARDL, Uganda.

112 EXAMINING THE MEDIATING ROLE OF REGULATORY GOVERNANCE ON BOTH DECENTRALIZATION AND SERVICE QUALITY IN KITAGATA GENERAL HOSPITAL, SHEEMA DISTRICT WESTERN UGANDA

¹Samanya Bulhan, ²Tom Mulegi, ³Malinga Ramadhan Badru, ⁴Muhaise Hussein and ⁵Eric Mabonga

¹Department of Public Administration and Development Studies, Kampala International University Uganda.

²Department of Public Administration and Development Studies, Kampala International University, Uganda.

³School of Mathematics and Computing, Kampala International University, Uganda

⁴Department of Computing in the Faculty of Science and Technology, Kampala International University

⁵Department of Business in Faculty of Business and Management, Kampala International University.

*Corresponding author's email address:: samanyabulhan@gmail.com; mulegi@kiu.ac.ug, ramadhan.malinga@kiu.ac.ug, Hussein.Muhaise@kiu.ac.ug and eric.mabonga@kiu.ac.ug

Abstract

This paper aimed to investigate the moderating effect of regulatory governance in the relationship between decentralization and service quality at Kitagata General Hospital in Sheema District, Western Uganda. The specific objectives were to establish the link between decentralization and service quality, to assess the relationship between regulatory governance and service quality and to assess the moderating role of regulatory governance. The hypotheses were: The null hypotheses that were formulated for this study include; (HO1) There is no significant relationship between decentralization and service quality; (HO2) There is no significant relationship between regulatory governance and service quality; and (HO3) Regulatory governance does not moderate the relationship between decentralization and service quality. The research framework for the study was principal-agent theory and the research design used was descriptive survey and data was collected from 41 respondents using closed ended questions. Chi square test was used in data analysis of the results. The study recorded a p-value of 0.017 for HO1 therefore rejecting it and showing that there is a relationship between decentralization and service quality. The model HO2 was accepted with a significance of 0.148 while the model HO3 was rejected with a significance of 0.037 showing that there was a relationship between the three variables. Therefore, this paper has shown that decentralization enhances service quality and that the role of regulatory governance was less critical. The recommendations include the organisation of training in the area of health care management, the provision of follow-up support and the involvement of the stakeholders in the process of decentralization for enhancement of the service delivery. Thus, it is imperative to create platforms that can be used in order to solicit feedback from the communities.

Keywords: Decentralization, Regulatory governance, Service quality and Kitagata, Sheema District; Uganda.

*Friday Ogbu Edeh, ²Hamidah Nabawanuka, ³Dayo Bennedict Olanipekun, ⁴Assoc. Prof Jude Bassey, ⁵Susan Ngugi Njeri, ⁶Rabiatou Jallow Kebbeh and ⁷Muhorakeye Jeannette

¹Department of Research and Innovations, College of Economics and Management, Kampala International University (Main Campus), Uganda

*Corresponding author's email address: friday.edeh@kiu.ac.ug

²Department of Human Resource & Supply Management, College of Economics and Management, Kampala International University (Main Campus), Uganda hamidah.nabawanuka@kiu.ac.ug

³Department of Economics, College of Economics and Management, Kampala International University (Main Campus), Uganda. dayo.olaniyekun@kiu.ac.ug

⁴Department of Business Management, College of Economics and Management, Kampala International University (Main Campus), Uganda. jude.bassey@kiu.ac.ug

⁵Postgraduate Student, Department of Finance & Accounting, College of Economics and Management, Kampala International University (Main Campus), Uganda. ngugi@studmc.kiu.ac.ug

⁶Postgraduate Student, Department of Human Resource & Supply Management, College of Economics and Management, Kampala International University (Main Campus), Uganda. rabiatou@studmc.kiu.ac.ug

⁷Postgraduate Student, Department of Business Management, College of Economics and Management, Kampala International University (Main Campus), Uganda. akamanzi777@gmail.com

Abstract

This study explores the motivating factors influencing the use of ChatGPT among postgraduate students in East African countries, amidst rapid global transformations driven by advanced technology, globalization, and demographic changes. Technological advancements, particularly in artificial intelligence (AI), have led to the emergence of tools like OpenAI's ChatGPT, which significantly impacts academic environments and has garnered interest among postgraduate students for research purposes. Understanding the motivations behind the usage of such AI tools is crucial for educators, policymakers, and technology developers. The study focuses on three key motivating factors: perceived ease of use, perceived usefulness, and perceived enjoyment. Additionally, it will investigate the moderating effect of internet accessibility on these relationships. A comprehensive literature review will provide a clear framework for the study's variables. Employing a mixed-methods approach, the researchers will gather quantitative data through surveys and qualitative data via interviews, targeting postgraduate students in Kenya, Uganda, Tanzania, and Rwanda. A simple random sampling technique will be applied,

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INVESTIGATING MOTIVATING FACTORS OF CHATGPT USAGE BY POSTGRADUATE STUDENTS IN EAST AFRICAN COUNTRIES

using Krejcie and Morgan's sample size determination method. Data collection will utilize validated instruments to measure the motivating factors, ChatGPT usage, and internet accessibility. The analysis will be conducted using multiple linear regression with IBM SPSS 25.0 to evaluate the research propositions. The study aims to derive conclusions, implications, and future research directions based on its findings.

Keywords: Artificial Intelligence, Chatbots, Motivation, Internet Accessibility.

114 INFLATION AND THE DEMAND FOR HEALTHCARE IN NIGERIA: THE IMPLICATION OF THE COPING STRATEGIES AMONG FIXED INCOME EARNERS IN NIGER STATE

Muktar Bala

Email address: muktarbala@yahoo.co.uk

Abstract

This study examines the impact of inflation on fixed-income earners in Niger State, Nigeria, particularly following the removal of fuel subsidies in the second quarter of 2023. This policy change led to a sharp increase in the prices of goods and services, including food and healthcare, significantly affecting civil servants and other fixed-income earners. Despite the poor health insurance schemes in the state, little is known about how these individuals cope with rising costs and how this affects their healthcare demands. The study surveyed 1,200 fixed-income earners and utilized both descriptive statistics and logistic regression analysis, categorizing the inflationary period into three phases: the first three months, six months, and beyond six months after subsidy removal. The findings revealed that in the first phase, many individuals borrowed money, sought help from friends, or sold assets to meet healthcare needs. In the second phase, respondents reported prioritizing food over health, leading to skipped medications and reliance on unqualified medical practitioners or traditional remedies. By the third phase, negative health behaviors persisted, and food security was further compromised. Logistic regression indicated that children in fixed-income households were more likely to be malnourished compared to their non-fixed-income counterparts, who were also less likely to skip medications or resort to inadequate medical options. The study recommends that the government provide emergency support, strengthen the health insurance sector, and adjust civil servant salaries to help them adapt to the challenging economic conditions.

Keywords: Inflation, Health, Fixed-Income Earners, Medical

EDUCATION

115 MANAGING THE EDUCATIONAL AND SOCIOECONOMIC IMPACT OF BRAIN DRAIN IN DEVELOPING COUNTRIES

***Omowonuola E. Diya and Olufunke O. Olatoye**

*Department of Science and Technology Faculty of Education
Olabisi Onabanjo University,
Ago-Iwoye, Ogun State, Nigeria*

**Corresponding author's email address
: iloveomowonuola2023@gmail.com*

Abstract

Education is vital for the prosperity and economic stability of any nation. However, the phenomenon of brain drain, where highly educated and skilled professionals emigrate from their home countries in search of better opportunities, presents a significant challenge. This paper examines the causes of brain drain within the education sector, its impact on both the educational system and broader society, and proposes strategies to address this issue. Brain drain in education is characterized by the exodus of trained and educated individuals due to factors such as job dissatisfaction, unfavorable working conditions, inadequate public services, and economic instability, conditions particularly prevalent in many developing countries, especially in Africa. There is an urgent need to confront this challenge and devise effective strategies to mitigate its adverse effects on affected nations. While the migration of skilled individuals may have some economic benefits, such as overseas remittances, the long-term consequences, including the depletion of talent and economic stagnation, are far more detrimental. To counteract brain drain, it is recommended that governments invest in infrastructure to create a more attractive environment for citizens. This includes increasing workers' remuneration, fostering a business-friendly environment, ensuring a reliable power supply, and implementing strategies to control inflation and provide welfare support for the poor and vulnerable. These measures are essential to mitigate the effects of brain drain and retain skilled professionals within their home countries.

Keywords: Brain drain, Education, Immigration.

116 HOME ENVIRONMENT ON LEARNING BEHAVIORS. A CASE STUDY OF SECONDARY SCHOOLS IN MAKINDYE DIVISION

Kimbowa John Kityo

College of Education Open and Distance Elearning, Kampala

Abstract

Despite the recognized significance of the home environment on learning behaviors, there is limited research specifically focusing on secondary schools in the Makindye division. Therefore, the general objective of this study is to investigate the impact of the home environment on learning behaviors in secondary schools in Makindye division, Uganda. Other objectives include examining the effect of parental involvement on students learning behaviors in secondary schools. To assess the effect of the availability of learning resources at home on students' learning behaviors. To explore the effect of the social-economic status in shaping students learning behaviors. By conducting this study, we contribute to the growing body of knowledge on the subject, providing valuable insights into the specific factors within the home environment that influence students learning behaviors. A mixed research design will be employed for this study. This method involves integrating both quantitative and qualitative approaches to gain a more complete understanding of the research problem.

Keywords: Home Environment, Learning Behaviors, Parental Involvement, Socio-Economic Status.

117 ENTREPRENEURIAL RETRAINING SKILLS COMPETENCIES NEEDED BY TEACHERS OF BUILDING TECHNOLOGY TRADE IN TECHNICAL COLLEGE OF GOMBE AND BAUCHI STATES

Abubakar Adamu

Federal College of Education, (Tech.) Gombe

Email address: abubakararkwami@fcetgombe.edu.ng

Abstract

This study aimed to identify the entrepreneurial retraining skill competencies required by building trade teachers in technical colleges in Gombe and Bauchi States, guided by three research questions and hypotheses. The study involved 51 building trade teachers, 16 science and technical colleges, and 32 industrial training officers. Using a survey research design, five experts validated the study instrument, and a Cronbach Alpha reliability coefficient of 0.81 was obtained. Data were collected through questionnaires administered by six research assistants, and analysis was conducted using SPSS, focusing on mean and standard deviation. The findings indicated that Building Trade teachers require further managerial competencies such as effective communication with students, long-term planning, goal attainment, and continuous learning. It was also found that entrepreneurial skill competencies are essential and highly reliable for these teachers. The study recommended that teachers adopt diverse teaching methods to enhance practical skill acquisition.

Additionally, the State Ministry of Education should collaborate with universities of technology to provide extended vocational retraining programs for building trade teachers and offer conferences and seminars as part of staff development initiatives.

Keywords: entrepreneurial, retraining, competencies, skills, trade, technical college.

118 ARTIFICIAL INTELLIGENCE FOR SUSTAINABLE DEVELOPMENT IN TACKLING COMPLEX AFRICAN CHALLENGES

Garba Tela

*School of Business Education, Department of Accounting,
Federal College of Education (Tech), PMB 60, Gombe, Gombe
State, Nigeria*

Email address: garbatela01@gmail.com

Abstract

The development of artificial intelligence (AI) has the potential to disrupt and transform socio-economic activities in Africa. The term is considered a tool for sustainable development and is gradually revolutionizing several sectors, including health care, manufacturing, finance, education, agriculture, etc. These technologies offer a way to surmount constraints associated with traditional teaching and learning and a means to improve access to quality education, fostering Sustainable Development Goals. 4. AI will create flexibility for teachers and teaching and learning, respectively. Depending on the type of technology utilized, using AI could reduce the burden of attending classrooms and marking and other activities in the classroom; it enhances the overall teaching quality and experience. This paper is not empirical but documentary in nature. AI is a new invention in Africa's field of education; we Africans rely heavily on global studies, especially in European and other Asian countries. There is a need to promote AI for educational activities in developing countries to ensure inclusive and equitable quality education for all to be achieved. The paper touches on the concept of artificial intelligence (AI), the prospects and challenges of AI in Africa's educational system, and AI as an economic opportunity for Africa. The paper recommends that the management should provide training in understanding how AI works and draw conclusions for achieving AI for sustainable development.

Keywords: Artificial Intelligence (AI), Education, Sustainable Development Goal, Teaching and Learning (T&L).

119 EFFECT OF INTELLIGENT TUTORING SYSTEM ON EDUCATION

¹Sulaiman Umar S. Noma, ²Muhammed Garba,
³Hassan Suru, Ajayi Ebenezer Akinyemi
sulaimanumarsnoma@gmail.com

Abstract

Intelligent Tutoring Systems (ITSs) are an area of artificial intelligence in education that supports personalized teaching and learning. ITS allows teachers/lecturers to provide customized educational materials to the students while they learn a particular domain of knowledge at their own desired time without human intervention. This research investigated the effect of ITS on the academic performance of students learning the concept of computer programming through ITS and traditional or conventional methods. This was conducted by the fresh ND I students from the Department of Computer Science, Kebbi State Polytechnic, Dakingari, during the school year 2021-2022 at the treatment of 12 weeks. A quasi-experimental design was adopted to compare the performance of the experimental and control groups. One null hypothesis was tested at the 0.05 alpha level of significance using statistical procedures. The null hypotheses were rejected at $p\text{-val} = .026$. The findings revealed that the experimental group performed better with a mean = 39.00 than the control group with a mean = 33.23.

Keywords: intelligent tutoring system, computer programming, education, students

120 EMPOWERING YOUTH THROUGH TERTIARY INSTITUTIONS-LED INITIATIVES ON HEALTH, FOOD, AND ENVIRONMENTAL SUSTAINABILITY

Aliyu Idris Funtua

Email address: aliyumaikejiji@yahoo.com

Abstract

The global community faces significant challenges in achieving sustainable development, particularly in health, food security, and environmental degradation, which threaten global well-being. Addressing these interconnected issues requires a multifaceted approach that engages and empowers youth, who are the future stewards of the planet. Tertiary institutions (TIs) play a crucial role in this effort by serving as hubs of knowledge, innovation, and human capital development. They are uniquely positioned to empower young people to drive positive change in health, food sustainability, and environmental stewardship. This article explores how TIs can fulfill these expectations while balancing their academic mandates. By reviewing existing

knowledge and practices, the article highlights strategies TIs can employ to empower youth in promoting healthy lifestyles, sustainable food systems, and environmental sustainability. It emphasizes the importance of integrating these areas into interdisciplinary academic programs by leveraging TIs' resources, expertise, and community connections. Through these approaches, TIs can nurture a generation of young leaders who are not only aware of the challenges but equipped with the skills and mindsets to create innovative solutions. The article advocates for aligning these initiatives with national and international policy frameworks, such as the United Nations' Sustainable Development Goals (SDGs), to enhance contributions and access potential funding or support mechanisms.

Keywords: Sustainable Development, Youth Empowerment, Health, Food.

121 NEW APPROACH TO HUMAN CAPITAL DEVELOPMENT FOR THE MANAGEMENT OF TEACHER EDUCATION FOR THE THIRD WORLD COMMUNITIES

Elizabeth Anthony

*Department of Business Education, Federal College of
Education, Yola, Adamawa State, Nigeria
Email address: eanthony@fcecylola.edu.ng*

Abstract

This paper explores a multidisciplinary approach to human capital development as a strategy for managing teacher education for sustainable development in Nigeria. Teacher Education (TE) is seen as the policies and practices designed to equip current and prospective teachers with the knowledge, attitudes, behaviors, and skills necessary for effective performance in the classroom and broader community. Grounded in human capital theory, the paper argues that education enhances worker productivity, thereby accelerating national economic growth. However, challenges such as government policies, globalization, low technological advancement, religious and socio-cultural demands, and mismanagement have hindered the effectiveness of teacher education in developing human capital. The paper suggests solutions like curriculum reviews, on-the-job training, re-training, and restructuring teacher education to address these challenges. It also highlights the need for allocating resources to teacher education for sustainable development and peace. The paper concludes that professional training for teachers is crucial for human capital development, as education is a vital driver of growth and national development. It recommends continuous teacher training and re-training, aligned with professional ethics, to adapt to societal changes, particularly in the evolving school context regarding discipline, pedagogies, and content.

This can be achieved through workshops, seminars, and on-the-job training programs.

Keywords: Human Capital Theory, Management, Teacher Education, Peace, Sustainable Development

122 IMPACT OF PEER ASSESSMENT STRATEGY ON NIGERIA CERTIFICATE IN EDUCATION (NCE) STUDENTS' PERFORMANCE IN MEASUREMENT AND EVALUATION COURSE IN FCT COLLEGE OF EDUCATION ZUBA, ABUJA

Orji Uzoaku Eunice

Department Of Educational Psychology FCT College Of Education Zuba, Abuja.

Email address and phone number: tbrainacademy@gmail.com

Abstract

This study examined the impact of peer assessment strategy on the performance of Nigeria Certificate in Education students in a measurement and evaluation course at FCT College of Education, Zuba, Abuja. Peer assessment is a collaborative evaluation method where students evaluate each other based on the teacher's criteria. A quasi-experimental design, including pre-test and post-test with control groups, was used. The sample comprised 136 students, with 76 in the experimental group and 60 in the control group. Two research questions and two hypotheses guided the study, with data collected through a short-answer test in measurement and evaluation (STME) for both pre- and post-tests. Analysis was conducted using frequency counts, mean, standard deviation, and analysis of covariance (ANCOVA). The results showed that peer assessment had a significant positive impact on students' performance in the course. However, no significant gender differences were observed regarding cognitive achievement. Based on the findings, the study recommended that lecturers teaching measurement and evaluation courses should adopt the peer assessment strategy, as it provides students with prompt feedback on their activities.

Keywords: Measurement, Evaluation, Peer Assessment, Feedback, Meta-Cognitive Skills, Performance

123 INFLUENCE OF TEACHERS AND STUDENTS' ASSESSMENT OF SERVICE COMPACT (SERVICOM) ON SERVICE DELIVERY IN SECONDARY SCHOOLS IN ABUJA

Okojie, Monday Uijiakhien

Department Of Social Studies Fct College Of Education Zuba, Abuja

Email address and phone number: okojiemon@yahoo.com

Abstract

This study assessed the effect of service compact on service delivery in secondary schools in the Federal Capital Territory, Abuja. The researcher employed the survey research method. The population of the study comprised of 58 schools, 10,718 students, and 2,899 teachers. The simple random sampling technique was used to select three area councils and six secondary schools. The respondents were 120 teachers and 450 students from SSS 111. A 30-item questionnaire was constructed and used in collecting the needed information from the respondents. The mean score was used to answer the research questions, and the Chi-square (χ^2) of independence was used to test the corresponding hypotheses. The findings (among others) are: the salaries and allowances of the teachers are not promptly paid; the teachers are not promoted as at when due; the principals withhold important information that requires everybody's consideration and attention; there is a communication gap among the school managers, teachers, and students; the teachers are not resourceful in the improvisation of teaching materials; the students cannot challenge service failure because they do not have enough knowledge of SERVICOM in their schools. Based on the findings, the researcher strongly recommended (among others) that: teachers salaries and allowances should be paid promptly; the principals should communicate information adequately and promptly within the school system; SERVICOM should have a desk officer in all the secondary schools in the Federal Capital Territory and should be captured as part of Social Studies content in school curriculum.

Keywords: Communication Gab Federal Capital Territory Motivation Service Compact

124 INNOVATION IN ENGLISH LANGUAGE TEACHING AND LEARNING: A NEW OUTLOOK FOR GLOBAL BEST PRACTICES

Usman Gurama

Email address: gurama1962@gmail.com

Abstract

The modern or contemporary goal of language teaching and learning should be to equip both teachers and students of all levels of education with innovative knowledge and awareness of how global best practices define and position their use of the English language. Consequently, teachers of English need to be abreast of modern innovations in ICT technologies that will envision the teaching and learning of English within the context of the new normal of globalization. As an opinion paper, it set out to discuss the need for the application of ICT technologies in our educational system for the teaching and learning of the English

language. The paper made some conceptual clarifications regarding the key concepts discussed. It also discussed the challenges associated with ICT resources for both teachers and students and the benefits of doing so. Conclusions were drawn, and the paper made some recommendations for the deployment of modern innovations in ICT technologies, which should be keyed into maximally by teachers and learners within the ambit of global best practices.

Keywords: ICT, Technologies, English Language, Innovation Best Practices, Global, Education.

125 BRIDGING DISCIPLINES, SOLVING AFRICAN COMPLEX CHALLENGES THROUGH LANGUAGE EDUCATION FOR SUSTAINABLE PARTNERSHIP AND DEVELOPMENT

Nathan Joshua Tomtsu

Email address: nathanjtomtsu@gmail.com

Abstract

This paper explores the critical role of partnerships in sustainable development, particularly emphasising how interdisciplinary collaboration and language education can address Africa's multifaceted challenges. Sustainable development in Africa faces unique obstacles, including economic disparity, political instability, environmental degradation, and social inequities. To effectively tackle these issues, there is a pressing need for holistic approaches that bridge diverse disciplines and integrate local contexts. Language education emerges as a pivotal tool in this endeavour, fostering communication, cultural understanding, and inclusive participation. Leveraging partnerships between educational institutions, governments, non-governmental organisations, and local communities, language education can be tailored to meet the specific needs of African societies. These partnerships can enhance educational access, promote multilingualism, and support the preservation of indigenous languages, thus reinforcing cultural identities and social cohesion. Furthermore, interdisciplinary collaboration can enrich language education by incorporating insights from fields such as environmental science, public health, economics, and political science, creating a more comprehensive and adaptable curriculum. The paper argues that through strategic partnerships and a commitment to interdisciplinary methods, language education can significantly contribute to solving Africa's complex challenges. By empowering individuals with the skills and knowledge to engage in sustainable practices and policy-making, such initiatives can drive progress towards achieving the Sustainable Development Goals (SDGs) across the continent. Ultimately, this integrated approach underscores the transformative potential of

education in fostering sustainable development and resilience in African communities.

Keywords: Disciplines, African Complex, Language, Education, Sustainable Partnership

126 COMPARATIVE STUDY OF CONCEPT MAPPING AND INQUIRY STRATEGIES ON ACADEMIC ACHIEVEMENT OF NCE PHYSICS STUDENTS IN THE NORTH-EAST ZONE, NIGERIA

Ali Auta

Email address: habanrasheeda2011@gmail.com

Abstract

This study investigated the comparative effects of concept mapping and inquiry methods of teaching on the academic achievement of N.C.E. physics students in the North-East zone of Nigeria. The study was a pretest-post-test experimental match group design. The population of the study consisted of two hundred and forty-seven (247) physics students from seven state colleges of education in the North-East Zone. Two out of the seven colleges were sampled using simple random sampling technique by flipping a coin; the two colleges were designated experimental group 1 (E1) and experimental group 2 (E2). Intact classes were used for the study. The two groups were subjected to a treatment for six weeks each. Thirty-four (34) students were used in experimental group (E1), and thirty-three (33) were used in experimental group E2. A research question and a corresponding null hypothesis were raised with a view to finding out if there was any significant difference in the academic achievement of the students taught physics concepts using concept mapping and inquiry strategies of teaching, respectively. The hypothesis was tested using a t-test statistic at the $P \leq 0.05$ level of significance. The findings of the study showed that there was no significant difference between both groups in their academic achievement after treatment. It was concluded that innovative teaching strategies enhance students' academic achievement, and teachers should be trained in the use of learner-centred instructional strategies such as concept mapping and inquiry strategies of teaching as one of the recommendations made.

Keywords: Concept Mapping, Inquiry Strategy, Academic Achievement, NCE Students.

127 AN ANALYSIS OF POOR ENROLMENT OF GIRLS INTO TECHNICAL AND VOCATIONAL AND TECHNOLOGY EDUCATION PROGRAM IN 4 STATE IN NIGERIA

Lucy Chioma Usen

Abstract

The study is an analysis of poor enrolment of girls into technical and vocational education programs in Borno, Adamawa, Kaduna, and Kano states in Northern Nigeria. It was conducted to examine the root causes of poor enrolment of girls into vocational programs with a view to recommending steps to stimulate girls interest in vocational education in Nigeria. The assessment surveyed young women from diverse backgrounds (host communities, refugees, IDPs). A structured questionnaire collected data on demographics, education, residency status, technology access, employment, business ownership, aspirations, and socio-economic context's impact on opportunities for students. The Kobo tool was used to collect data, while spreadsheet software (Google Sheets) was used to perform standard data analysis operations such as data cleaning, data wrangling, manipulation, and visualization. The analytical method was descriptive statistics. Findings revealed that women face challenges like limited access to technology, education, and employment, hence limiting their employability opportunities, even as 95% of them expressed interest in starting businesses. Findings also indicate that the majority of this population group who are meant to be of working age (21-36) are unemployed (90%) due to lack of skills, while a significant portion are IDPs/refugees facing unique barriers with limited technology access (smart devices, internet) and education (62% with no formal education) as major hurdles. It is recommended, among others, that age-appropriate interventions be tailored for the education and skill development of younger women and to access jobs and finance/markets to incentivise them.

Keywords: Girls' Enrolment, Vocational Education, Technology Access, Socio-Economic Barriers

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ALTERNATIVE ENERGY SOURCE AS VEHICLE FOR ATTAINING SAFER ENVIRONMENT IN THE 21ST CENTURY: A CASE STUDY OF BIOGAS PRODUCTION FROM COW DUNG, POULTRY DROPPINGS AND CO-DIGESTION OF THE TWO WASTES

Mustapha Shariff Abdulkadir and Hamidu Saadu

Federal College Of Education, Katsina

Email address: shariffryr@gmail.com

Abstract

The current global energy crisis is coupled with continuous atmospheric pollution, which often leads to global warming. This prompted the application of anaerobic digestion as a useful tool for renewable energy production through biogas generation from cow dung and poultry droppings. The research was directed towards the optimisation of anaerobic digestion under

diverse digestion conditions: suspension-to-water ratio, temperature, and pH. The operating parameters of anaerobic sludge and digesters and methods of acceleration and optimisation were used to improve process efficiency. The concentrations from 0.10 kg/dm³ to 0.35 kg/dm³ were prepared for each suspension and digested aerobically for fourteen days. Additionally, temperatures were measured and pH levels were varied. The volumes of gas produced were recorded. The suspension concentration of 0.33 kg/dm³ at a 1:3 suspension-to-water ratio has a comparatively higher volume of gas. Similarly, the mean biogas yielded by the cow dung suspension was significantly lower than the biogas yielded by the poultry dropping suspension. The volumes of gas generated from cow dung and poultry droppings as well as combined were 640 ml, 870 ml, and 880 ml, respectively. There is a need to harness biogas production, which will save energy costs in many households where the availability of dual-purpose kerosene and cooking gas is not common. The technology of biogas could bring the excessive use and combustion of fossil fuels to an environmentally bearable minimum.

Keywords: Renewable Energy, Biogas, Global Warming, Anaerobic, Optimisation

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EXAMINING THE PREDICTORS OF UNRULY BEHAVIOURS AMONG SECONDARY SCHOOL STUDENTS IN NIGERIA

¹Donald B. Enu, ²Patience Onyangbe Ashibi, and ³Jacob Eneji Ashibi

¹College of Education, Open and Distance Learning, Kampala International University

**Corresponding author's email address: donald.enu@kiu.ac.ug*

²Department of Educational Administration & Planning, College of Education, Open and Distance Learning, Kampala International University, Uganda

patience.ashibi@kiu.ac.ug

³Department of Development, Peace and Conflict Studies, Kampala International University, Uganda jacob.ashibi@kiu.ac.ug eashibi@noun.edu.ng

Abstract

This study investigates the predictors of unruly behaviors among secondary school students in Nigeria using secondary research methods. Data were gathered and analyzed from various sources such as documentaries, books, articles, and reports. The research is grounded in three theoretical frameworks: social learning theory, control theory, and cultural deviation theory, which provide a comprehensive understanding of factors influencing students' behaviors. The findings reveal that several key factors contribute to unruly behavior, with family background being a significant predictor.

Students from unstable or unsupportive home environments often exhibit behavioral issues in school. Peer influence is another critical factor, as students who associate with delinquent peers are more likely to adopt similar behaviors. Additionally, teachers' attitudes and behaviors play a substantial role, with negative or punitive teacher-student interactions exacerbating unruly conduct, while supportive relationships help mitigate such behaviors. Environmental exposure to violence also contributes to these issues. To address these concerns, the study recommends continuous training and retraining programs for teachers to improve classroom management and develop positive teacher-student relationships. It also stresses the importance of parental involvement in their children's upbringing and encourages government and traditional authorities to support parents in fostering stable and nurturing home environments. These strategies aim to offer practical solutions for educators, parents, and policymakers to effectively address and manage unruly behaviors in secondary schools.

Keywords: Unruly Behaviors, Peer Influence, Primary Socialization, Predictors.

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PARENTAL POVERTY AS A SOCIAL BARRIER TO GIRL-CHILD EDUCATION IN ZAMFARA STATE NIGERIA

Kainuwa A.

Department Of Educational Foundations Zamfara State University Talata Mafara

Email address a: ahmadkainuwa@yahoo.com

Abstract

This conceptual paper studies parental poverty as a social barrier to girl-child education in Zamfara State, Nigeria. The paper reviews the literature on poverty and its implication in Zamfara State, Nigeria, examines the level of girl-child education in Zamfara State, Nigeria, and examines the role of parental poverty in reducing the girl-child educational participation in Zamfara State, Nigeria. The discussion in the paper is based on the theoretical framework of conflict theory. This theory is appropriate for the study because it allows the reader to understand how girl-child education is significantly affected by parental poverty. Finally, suggestions and recommendations were provided to the government, parents, and guardians on how to improve the level of girl-child education in Zamfara State, Nigeria, through sustainable development goals and help in the educational process of their children. Conclusions from the literature were drawn, and the paper concludes that parental poverty is a barrier to girl-child education in Zamfara State, Nigeria.

Keywords: Parental Poverty, Barrier to Girl-Child Education, Zamfara, Nigeria.

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ACTIVITY-BASED, STUDENTS-CENTERED, EXPERIMENT AND IMPROVISATION (ASEI): STRENGTHENING MATHEMATICS AND SCIENCE EDUCATION (SMASE) IN NORTH-EASTERN NIGERIA

Gazali A. M., Mohammed A., Imande T. T., and Nafisatu U.

Federal College of Education (Tech) Gombe, Nigeria

**Corresponding author's email address: mohammedgazali02@gmail.com; abubakar.mohammed13@yahoo.com; imanditerlumun@yahoo.co.uk nafgaz000@gmail.com*

Abstract

This paper was designed to investigate Activity-Based, Students-Centered, Experiment, and Improvisation through Plan, Do, See, and Improve (PDSI) as a panacea to Strengthening Mathematics and Science Education (SMASE) in Upper Basic Schools of northern Nigeria. The study adopted an ex post facto research design, which was conducted in the entire North-Eastern States of Nigeria. A total of 993 mathematics and science teachers were considered as the population of the study. The study further employed non-probability purposive sampling, where the researchers selected 103 mathematics and science teachers who had attended the SMASE training only. The study was guided by two (2) research questions and one (1) null hypothesis, where a questionnaire served as an instrument for data collection. The result revealed that when teachers go through the SMASE training, there will be a gradual change and finally will lead to appreciating the role of SMASE training, thereby leading to a significant improvement in their teaching and learning process, which has been seen not only in their student's participation in class but also in their performance, especially at the JSCE examinations. It is therefore recommended that teachers should be encouraged to adopt ASEI/PDSI as an approach to SMASE; school-based training (SBT) should be encouraged and become a routine in every school so that ASEI/PDSI principles will be easily assimilated; and government and school authorities should devise a means of compulsory adoption and implementation of ASEI/PDSI principles and its principles in all teaching and learning.

Keywords: SMASE, ASEI, PDSI, SBT

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ASSESSMENT OF MITIGATIONS AND ADAPTATION STRATEGIES TO THE EFFECT OF CLIMATE CHANGE ON HUMAN HEALTH IN SOKOTO STATE NIGERIA

Mustapha Sani

Department of Geography, Sokoto State University, Sokoto

Abstract

Nigeria is one of the countries expected to be most affected by the impact of climate change on health aspects through sea level rise, extreme temperature, changes in precipitations and patterns of wind, flooding, disasters, and general health effects that have now become a common sight. The paper aimed to assess the mitigations and adaptation strategies to the effect of climate change on human health, examining the major diseases associated with climate change. A total of 220 medical and paramedical staff were interviewed in Sokoto State using a combination of snowball and purposive sampling techniques concerning the impact of climate change on human health. The paper found that the major diseases caused by climatic change in Nigeria are lung diseases, cancer, cardiovascular diseases, stroke, waterborne diseases, and respiratory allergies. The paper recommended some mitigations and adaptation strategies by Reduction of greenhouse gas emissions from burning fossil fuels, cutting down of trees, bush burning, emissions from transportation, and other anthropogenic activities; planting of trees to maintain the global circle by removing carbon dioxide (CO₂) from the atmosphere and storing it as plant biomass and producing oxygen for human consumption; and Improvement of cultivation methods will increase agricultural efficiency, reduce the loss of natural resources, and overcome hunger and malnutrition induced by climate change impact.

Keywords: Climate Change, Climate Variability, and Human Health.

133 COUNSELLING SERVICES AND PARENTAL BACKGROUND PROMOTES ENROLLMENT IN BUSINESS EDUCATION DEGREE PROGRAMMES IN RIVERS STATE

Chibuike Egbunefu

*Department of Business Education, Rivers State University,
Port Harcourt*

Abstract

The study investigated the contributing factors to students' registration into Business Education degree programs in Rivers State. The study employed a correlational research design. The population of the study comprised one thousand and two hundred (1,200) respondents, while the sample size of the study comprised three hundred and sixty (360) Business Education undergraduate students selected from Rivers State University and Ignatius Ajuru University of Education. A simple random sampling technique was adopted. A structured research instrument titled "Contributing Factors of Students' Registration into Business Education Degree Programmes Questionnaire

was used for data collection in the study. The data collected were analyzed using statistical tools such as the mean, standard deviation, and Pearson's Product Moment Correlation Coefficient. The findings revealed that there is a significant relationship between counseling services in business education and parental background influence in business education and students' registration into business education degree programs in Rivers State. Consequent to these findings, it was recommended that the government should provide functioning counseling services in higher institutions of learning in Rivers State, while business education teachers should be trained and retrained through seminars and conferences, and parents should be encouraged on how to educate their children on issues of choosing their course of study.

Keywords: business education, degree programs, counseling, parental background.

134 SDG⁵ IN RURAL COMMUNITIES: DOES ADULT LITERACY DEVELOPMENT MATTER?

Chidinma Dokubo

*Department of Adult Education, Rivers State University Port
Harcourt*

Abstract

The study investigated the influence of adult education programme on the achievement of sustainable development goal five (5) in Ekpeye kingdom of Rivers State. The study was guided by three objectives and three research questions. The study adopted a descriptive survey design with a population of 260 women and girls in the Ekpeye Kingdom of Rivers State. The entire population was studied as a census without sampling. This is due to the manageable size of the population. A self-structured questionnaire titled "Influence of Adult Education Programme on Achievement of Sustainable Development Goal Five Questionnaire" was used for data collection in this study. The instrument was validated by two experts in the field of Adult Education and Community Development. The reliability of the instrument was established through a test of internal consistency using Cronbach Alpha method. Reliability coefficients of 0.82, 0.78 and 0.88 were obtained for the various clusters of the instrument which showed the instrument was reliable. Research questions were answered using mean and standard deviation. The findings of the study revealed that functional literacy, human rights education, and entrepreneurship education influence the achievement of Sustainable Development Goal Five to a high extent. Based on the findings of the study, it was recommended among others government through the National Mass Education Commission should organize functional education programmes for women in all the states of the federation to empower women to compete favorably with their male

counterparts.

Keywords: SDG, rural communities, adult literacy, education.

135 EXPLORING FACTORS INFLUENCING RESEARCH PRODUCTIVITY IN BUSINESS EDUCATION IN TERTIARY INSTITUTIONS

Chioma Princess Chile

*Department of Business Education, Rivers State University,
Port Harcourt*

Abstract

Low levels of research productivity among academic staff prompted the study. This study explored whether individual factors such as self-efficacy, motivation, commitment, research orientation, and research skills predict the research productivity of business education in tertiary institutions in Nigeria. Using the positivist research paradigm and the predictive cross-sectional survey design, data were collected from 165 academic staff using the questionnaire survey method. Regression analysis revealed that individual factors of motivation and research skills were significant positive predictors of research productivity. Therefore, to improve research productivity in business education in tertiary institutions, managers were recommended to enhance the motivation of academic staff by making research enjoyable, curiosity-raising, and relevant in terms of improving their status and income. They should also enhance the research skills of academic staff in relation to research methodology skills, grant-getting skills, computer skills for research, and writing skills.

Keywords: individual factors, business education, tertiary institutions, predictors.

136 CLIMATE CHANGE EDUCATION AND ENVIRONMENTAL SUSTAINABILITY AMONG RURAL RESIDENTS IN THE GLOBAL SOUTH: FOCUS ON CROSS RIVER STATE

Omoogun, Remi Modupe and Ushie, Christiana Alorye

*Department of Environmental Education, Faculty of Arts and
Social Science Education
University of Calabar, Calabar.*

Email address: remiomoogun@gmail.com; Christieushie1@gmail.com

Abstract

Climate change education represents a pivotal force in shaping the collective response to one of humanity's most pressing challenges. This study explores how climate change education can help in providing the requisite competencies as a panacea in fostering environmental

sustainability, promoting sustainable behavior, and catalyzing informed action. The study examines the multidimensional nature of climate change education, encompassing formal education systems, informal learning platforms, and community engagement initiatives. By integrating scientific knowledge, socio-cultural perspective, and ethical consideration, climate change education equips individuals with the critical thinking and empathy necessary to navigate the complexities of environmental issues. Climate change education empowers individuals with the knowledge and skills to take the necessary action required against climate change and foster a culture of sustainable and environmental stewardship within our community. Based on the findings of this paper, it is recommended, among others, that climate change education should be taught in schools, laws should be enforced that guide how individuals relate to the environment, deforestation should be done based on the needs of society, not for massive commercial use that obtains, and seminars and workshops should be organized in town halls to create awareness on the causes of climate change and how to mitigate it.

Keywords: Climate Change Education, Environmental, Sustainability.

137 PARADIGM SHIFTS IN PRIMARY SCHOOL ENROLMENT, RETENTION AND PERFORMANCE: EVIDENCES FROM SCHOOL FEEDING PROGRAMME IN KATSINA STATE, NIGERIA

Ikwuakam, O.T., Ibrahim, M., & Haruna, S.Y

*Federal College of Education, Katsina, P.M.B 2041, Katsina
State*

Email address: ikwuosca@yahoo.com

Abstract

Despite the intensification of efforts towards achieving the Sustainable Development Goal of Education for All objectives in Nigeria, Northern Nigeria has continued to account for a substantial percentage of out-of-school children. In furtherance of these efforts, the School Feeding Programme (SFP) was initiated. This study therefore investigated the extent to which this has enhanced pupils' enrolment, retention, and performance. A survey design approach was adopted, while primary and secondary data were collated through a structured questionnaire and related literature, respectively. A multistage sampling technique was used to select 542 respondents from the three senatorial districts of the state. Descriptive and inferential statistics were employed in data analysis. Findings revealed that levels of enrolment were high, as indicated by regular and punctual attendance at school. Also, retention levels became high as absenteeism from the end of sessions,

term exams, drop-out, and leaving school before closing time reduced significantly. The academic performance level was high too, following improvements in class tests and term and end-of-session exam results. One-way ANOVA results showed that enrolment was significantly higher in the northern senatorial district than in central and southern districts, while retention in the north was higher than in central and southern districts. Test of relationship using Pearson Product Moment Correlation revealed that constraints to implementation of SFP significantly and negatively correlated with pupils' enrolment, retention, and performance levels except for retention in Katsina central senatorial district. Pupils' enrolment, retention, and performance witnessed positive shifts due to SFP. It is recommended that SFP should be sustained.

Keywords: school feeding, enrolment, retention, performance, constraints

138 CURRICULUM DE-COLONIZATION AND CULTURAL LIBERATION: AN AGENDA FOR HIGHER EDUCATION IN AFRICA

***Enu, Donald Bette and Mwanja Paul**

College of Education, open distance & e-learning, Kampala International University, Uganda

**Corresponding author's email address: donald.enu@kiu.ac.uk*

Abstract

This paper focused on the imperative for gradual curriculum decolonization in higher education in Africa. In the past six decades, Africa's educational curriculum, which has been a colonial legacy, has been dominant and in firm control and dictates of the colonial masters. This is a deliberate and systemic plan to ensure the continuous erosion of African heritage, values, and culture for the strategic selfish interests of the colonialists. Building on the need to integrate African indigenous knowledge contextualized on the peculiarities of Africans will liberate and promote the collective identity and culture of African people. The need for African higher education institutions to rise to the challenge of decoupling their curriculum from Europe-centric dependency and biases should assume prime concern with the utmost purpose of reversing the negative narrative that has taken a great toll on the larger African continent with respect to atrophying the cherished culture, values, national heritage, and identity of the great people of Africa. The paper will adopt a historical approach where data will be sourced from valid published journal articles, well-documented evidence-based records, books, as well as other relevant records related to the subject being

addressed. The paper will advocate for a comprehensive educational policy review by educational stakeholders managing higher educational institutions within Sub-Saharan Africa targeted at curriculum review and cultural liberation in order to reset the future of African higher education.

Keywords: Curriculum, Decolonization, Culture, Liberation, Higher Education.

139 DIGITALIZATION OF SOCIAL STUDIES EDUCATION FOR SUSTAINABLE DEVELOPMENT IN NIGERIA

Unugo Loiusa .O.

Department of Social Studies, Ebonyi state college of education

Abstract

Teaching has progressed from traditional face-to-face methods to a modern, technology-driven system, requiring teachers to adapt to new digital tools. As students increasingly embrace the digital world, educators face greater challenges in enhancing their skills to remain effective. Digital learning incorporates modern technology into the educational process, facilitating both remote learning and innovative methods for teaching and learning. In the digital age, teachers play a vital role as bridges to the broader knowledge community. While face-to-face learning was once preferred for its advantages, the COVID-19 pandemic emphasized the importance of digital learning and educational technology. This paper explores the benefits of digital learning in social studies education, highlighting improved accessibility and innovative learning methods. However, it also addresses challenges such as resistance from some educators to adopt new technologies, limited access to digital infrastructure, and technical and literacy barriers. To address these issues, the paper suggests enhancing teachers' capacity through professional development programs, increasing funding for digital tools, fostering staff mentoring on digital learning, and ensuring consistent, reliable technology for effective results.

Keywords: Digital Learning, Social Studies Education, ICT Integration, Educational Technology.

140 EDUCATIONAL MANAGEMENT AND EMERGING TECHNOLOGIES FOR ACHIEVING SUSTAINABLE DEVELOPMENT GOALS IMPLICATION FOR SUPERVISION

Ategwu Patrick Ogar

*Department of Educational Management, Faculty of Educational Foundations Studies University of Calabar
Email address and phone number:*

***¹Etta Robert Bikom and ²Igigli Joseph ungwugue**

¹Department of Religious and cultural studies, University of Calabar

**Corresponding author's email address: Patrickategwu@gmail.com / ogarpatrickategwu@unical.edu.ng; ²Department of library and information technology, Kampala International University Uganda
Joseph.igigli@kin.ac.ug*

Abstract

This paper deals basically with educational management and emerging technologies for achieving sustainable development goals. Implications for Supervision: The tangible usage of ICT and its efficiency and effectiveness had led to the wider utilization of this technology, such as computers, projectors, email, Facebook, Zoom, etc., for the operation and management of school organizations. Emerging technology such as computers helps educational management find creative solutions for complex allocation problems, timetable construction, etc. This paper highlights concepts of educational management, ICT as an actor in educational management, the importance of SDGS to classroom management, and effective strategies for managing education for SDGS. This paper concludes, among others, that the drive toward educational management facilitates the grounding of SDGS and accounts for the learner's ability to freely participate in the learning process. It recommends that in order to strengthen SDGS, professional development must include teacher education, professional education for educational leaders and community educators, education of extension officers, business trainees, journalists, and others involved in education in its widest sense, which are equally important.

Keywords: Educational Management, Emerging Technologies, Sustainable Development Goals, ICT.

141 SUSTAINABLE DEVELOPMENT GOALS (1,2). A PANACEA FOR ECONOMIC DEVELOPMENT IN CROSS RIVER STATE, NIGERIA (IMPLICATIONS FOR ENVIRONMENTAL EDUCATION).

¹Obibessong, Vera Mpuon and ²Aganyi Asu Ojong

¹Department of Continuing Education, Faculty of Arts and Social Science Education, University of Calabar

**Corresponding author's email address: verampuon15@gmail.com; ²Department of Environmental Education, Faculty of Arts and Social Science Education University of Calabar
aganyiojongasu@gmail.com*

Abstract

The universal continuous war against poverty and

zero hunger facilitated the UN decision to rebrand the Millennium Development Goals (MDGs) to Sustainable Development Goals (SDGs). Sustainable Development Goals are a panacea for development in Cross River State, Nigeria. One of the major objectives of the Sustainable Development Goals is to combat poverty and hunger in their entirety all over the world while preserving the environment for future generations. Cross River State, Nigeria, is one of such state where poverty and hunger remain a major problem. Though programs and measures have been taken to curb it, both internationally and locally, poverty still exists. This study hopes to investigate the problems surrounding the inability of the UN's SDG goals to be met in Cross River State. It hopes to examine those challenges the program has encountered on its journey to eradicating poverty and possibly suggest ways in which such issues can be dealt with. The study adopted the structural theory on poverty and hunger, which describes poverty as emanating from the opportunities given to various aspects of society—economic, political, or social—that limit their capabilities. Secondary qualitative sources of data were used for the study, and the analytical method of regression analysis was adopted in presenting the findings. The study recommends that the Cross River State government at various levels needs to create measures and monitor these measures that will ensure poverty and hunger are reduced to the barest minimum.

Keywords: Development, Poverty, Hunger, Sustainable Goals, and Cross River State.

142 CHALLENGES OF POVERTY ON ACADEMIC ACHIEVEMENT OF UNDERGRADUATES IN PUBLIC UNIVERSITIES IN NIGERIA: IMPLICATIONS FOR SUSTAINABLE POLICY DEVELOPMENT IN TEACHER EDUCATION CURRICULUM

Athanatius, Ifeanyi Ibeh

Department of Educational Foundations, Ebonyi State College of Education, Ikwo, Ebonyi State, Nigeria

Email address:

*doctorathanatiusibeh@gmail.com,
ifeanyiathanatius@yahoo.com*

Abstract

This study explores the challenges poverty poses to academic achievement among undergraduates in Nigerian public universities and its implications for sustainable development in teacher education curricula. Poverty significantly impacts students' academic success due to a lack of necessary resources. Research indicates that excellent academic achievements are hindered by financial difficulties. The study, conducted using a descriptive survey design, involved a sample of 600 undergraduates selected randomly from a population

of 23,621 students. A structured questionnaire was used to collect data, divided into personal information (Part A) and research issues (Part B). The reliability of the questionnaire was confirmed with Cronbach Alpha statistics, yielding coefficients of 0.81 and 0.80. The data were analyzed using mean statistics with a decision rule of 2.50, distinguishing positive from negative responses. Findings revealed that many students lack appropriate learning materials and struggle to pay fees on time due to financial constraints. Additionally, poverty has led to high rates of premarital sex, prostitution, and cohabitation, as students face difficulties in affording hostel accommodation. These challenges severely impede academic engagement and achievement. The study advocates for policy reforms in teacher education curricula to combat poverty, promoting practical and transferable skills, and study-and-work programs to help students earn money while pursuing their education.

Keywords: challenges; poverty; academic achievement; undergraduates.

143 ECONOMIC AND SOCIO-CULTURAL PRACTICES AND GIRL-CHILD EDUCATION IN OBANLIKU LOCAL GOVERNMENT AREA OF CROSS RIVER STATE, NIGERIA

Tandu, Mary Anyie and Tand, Egbe Ojong

Social Studies Department, School Of Secondary Education, (Art And Social Sciences), Cross River State College Of Education Akamkpa.

*Corresponding author's email address: Maryanyie@gmail.com

Political Science Department, School of Secondary Education, (Art And Social Sciences), Cross River State College Of Education Akamkpa. Egbetandu@gmail.com

Abstract

This study examines the economic and sociocultural factors and challenges affecting girl-child education in the Obanliku Local Government Area of Cross River State (2017-2023). The issues under investigation revolved around the socioeconomic status of parents, early marriage, and some cultural practices. Three research questions were formulated to examine the extent to which parental economic status, early marriage, and cultural practices hinder the education of the girl child. Data was collected using a structured questionnaire and structured enter view. Quantitative data was analyzed using frequency counts and percentages, while the Karl Person's coefficient was used to test the hypotheses with SPSS version 20.0. The findings established that the socio-economic status of parents significantly influenced the girl child's education in this local government area. The study recommends, among others, that parental economic status be enhanced for fees for the girls, and regular awareness campaigns and seminars should be held, especially in rural areas, by NGOs and government

agencies about the importance of girl-child education. Adult education centers should be established in rural areas to accommodate girls who dropped out of school or were forced into marriage (child betrothal). while sociocultural practices like Female Genital Circumcision (FGM) that prevent girls from being educated are plugged. The paper concludes that women/girls' education, if not hindered, is a potential agent of social transformation.

Keywords: economic, socio-cultural practices, girl-child education

144 EFFECT OF PRIOR KNOWLEDGE OF CHEMISTRY HOME-BASED-PRACTICE ON STUDENTS' INTEREST, RETENTION, AND PERFORMANCE IN SECONDARY SCHOOLS IN KATSINA STATE, NIGERIA

Sabiru Dahiru Yusuf

Federal College of Education, Katsina

Email address: shydahiru@gmail.com

Abstract

This study examined the effect of prior knowledge of chemistry home-based practice (PKCHBP) on students' interest, retention, and performance in secondary schools in Katsina State, Nigeria. The study was necessitated by students' persistent inability to link prior knowledge from home-based practice to classroom activities, leading to low interest, retention, and performance rates. All SS 11 Chemistry students of twenty-five government-owned senior secondary schools in Katsina Zonal Education Quality Assurance constituted the population of the study. A multistage sampling procedure was used to select the sample size of 74 students that was used for the study. While a quasi-experimental design was adopted, the Prior Knowledge of Chemistry-Home-Based Questionnaire (PKCQ), Chemistry Performance Test (CPT), and Chemistry Interest Questionnaire (CIQ) were instruments used to collect data on students' interest, retention, and performance with Cronbach's alpha reliability coefficients of 0.95, 0.85, and 0.83, respectively. Descriptive statistics (frequency counts, percentage, mean, and standard deviation) and inferential statistics (t-test) at $p < 0.005$ level of significance were employed in data analysis. The results showed that the experimental group had better performance than the control group. Also, interest and retention were enhanced in the experimental group. It was concluded that PKCHBP is relevant in enhancing students' interest, performance, and retention in chemistry. It was recommended that chemistry teachers should endeavour to link home-based practices to school learning content.

Keywords: Prior Knowledge, Home-Based-Practices, Chemistry, Interest.

**145 INSURGENCY, BANDITRY AND
OUT-OF-SCHOOL CHILDREN SYNDROME
IN NORTHERN NIGERIA: A TICKING ‘TIME
BOMB’**

James E. Archibong

Cross River State College of Education Akamkpa, Nigeria

E-mail address a: jarchibong@yahoo.com;

jarchibong11@gmail.com

Abstract

In the past 15 years, armed non-state actors have severely impacted Nigeria’s educational system. Since July 2009, Boko Haram, an Islamic sect opposed to Western education, has attacked government institutions and civilians in northeast Nigeria, abducting thousands of children and recruiting many as child soldiers. Between 2009 and 2022, 2,295 teachers were killed, over 19,000 displaced, 1,500 schools closed, and another 1,500 destroyed, leaving nearly one million children with limited access to education. Schools have been turned into military bases by security forces. Meanwhile, armed criminal gangs, known as “bandits,” have also attacked schools, abducting children for ransom. These attacks on education have deprived children of their right to learn and threaten Nigeria’s future. Cultural and religious practices further exacerbate the problem by denying children access to education. Nigeria has 20.2 million out-of-school children, the highest globally, predominantly in the north. Emergency education support is urgently needed. The government’s Safe Schools Initiative has been ineffective, necessitating the creation of a special commission with sufficient budget to rebuild schools, revitalize education, and train teachers in northern Nigeria to prevent further deterioration.

Keywords: Insurgency, Banditry, Out-of-School Children, Education, Northern Nigeria.

**146 ANALYTICAL SOFTWARE
IN EDUCATION RESEARCH: A
COMPETENCY-BASED ASSESSMENT**

Ebere S. Wagbara

Department of Education Foundation, Rivers State University

Abstract

The study assessed lecturers’ competencies in using data analysis software for academic research in the faculties of education at Rivers State universities. The research involved 315 lecturers from Rivers State University and Ignatius Ajuru University of Education. As the population size was manageable, the entire group was studied without sampling. Data was collected through a self-designed questionnaire, validated by experts, and tested for reliability using the Cronbach Alpha method, yielding reliability coefficients of 0.83 and

0.79. The research questions were analyzed using mean and standard deviation, while hypotheses were tested with t-test statistics at a 0.05 significance level. Findings revealed that lecturers had low proficiency in using Microsoft Excel for data entry and data analysis software for research purposes. Consequently, the study recommended that faculties organize periodic training sessions to enhance lecturers’ skills in using Excel and other relevant software, while lecturers should engage in continuous training to improve their data analysis competencies and research quality.

Keywords: Evaluation, Competency, Data Analysis, Software, Quality Research.

**147 EDUCATION AND WORK: MISSING
LINK IN UNIVERSAL BASIC EDUCATION
PROGRAMME IN NIGERIA**

Ugbong, Benedict Igboh

Cross River State College of Education, Akamkpa

Email address and phone number: benugbhong@yahoo.com

Abstract

The Universal Basic Education Scheme in Nigeria is designed to address the provision of education for the head, heart, hand, and health (4Hs). This study, “Education and Work: Missing Link in the Universal Basic Education (UBE) Program, is guided by the observations that the implementation of the UBE program does not seem to be adequately addressing the issue of vocational skills. Also, many children of school-going age are presently out of school nationwide. These children are either child labourers or apprentices. The study will suggest a way forward to involve all stakeholders identified in the Universal Basic Education Act by spelling out their various roles and responsibilities. These stakeholders include families, communities, the Parents-Teachers Association, NGOs, teachers, the private sector, and all tiers of government. Conclusions and recommendations will be drawn on the proper implementation of the Universal Basic Education Scheme and how the UBE scheme can be used to tie education to the world of work.

Keywords: education and work, missing link, universal basic education, implementation, vocational skills, school-going age.

**148 EFFECT OF STAFF DEVELOPMENT
TRAINING AND TEACHER’
EFFECTIVENESS
IN PUBLIC SECONDARY SCHOOLS IN
AFIKPO EDUCATION ZONE OF
EBONYI STATE NIGERIA**

Uwaoma Akwu Ude

Department of Social Studies, Ebonyi State College of
Education, Ikwo Ebonyi State, Nigeria.

Email address and phone number: uwaku2000@gmail.com,
+2348067241221, +2347089887913

Abstract

The study investigated the difference in teaching effectiveness between teachers who had staff development training and those who did not in a public secondary school in the Afikpo educational zone of the Ebonyi States of Nigeria. It was a survey research design that had a population of 2047 secondary school teachers and 3,707 students in public secondary schools. The sample was selected randomly and had 34 teachers and 545 students as respondents for the study. The use of a questionnaire tagged Staff Development Questionnaire and Teacher Effectiveness (SDTEQ) was used to elicit information from the respondents, and the research had two research questions and two hypotheses. The research questions were analyzed with mean scores, while t-test statistics were used to test the hypothesis at the 0.05 level of significance. The findings revealed that teachers who participated in staff development training performed better than those who did not, and the paper recommended that the government and other stakeholders in education should encourage teachers to partake in staff development programs as it enhances input and improves students' academic performance.

Keywords: Effectiveness, Teachers, Development, Staff, Secondary Schools.

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EVALUATION OF LEARNING ENVIRONMENT, HYGIENE PRACTICES IN THE POST-COVID-19 ERA, AND SUSTAINABLE DEVELOPMENT GOAL 4 IN CRS.NIGERIA.

¹Ushie Christiana Aloye ¹Ommogun Remi Modupe
and ²Felicia Obun- Dan Agbor

¹Department of Environmental Education University of
Calabar.

²Department of Health Education, University of Calabar.

Abstract

This study aims to evaluate the learning environment and hygiene practices within the framework of the National School Health Program in primary schools across Cross River State, Nigeria, during the post-COVID-19 era, with a focus on Sustainable Development Goal 4. The study is guided by research questions derived from its objectives, employing a descriptive survey design. The population of interest includes 1,064 public primary schools in Cross River State, from which a sample of 633 schools was selected for the study. The primary data collection instrument is the *School Health Program Assessment Scale* (SHPAS), a checklist designed to assess key components of the program. This instrument will be

administered in the sampled schools. The data collected will be analyzed using simple percentage methods, and recommendations will be made based on the findings.

Keywords: learning environment, hygiene practices, school health program, primary schools.

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INFORMATION AND COMMUNICATIONS TECHNOLOGY (ICT): A CONDITION SINE QUA NON FOR EFFECTIVE EDUCATION IN THE 21ST CENTURY AFRICA

^{*1}Elias Ifeanyi E. Uzoigwe and ²Amara Mary
Chukwuma-Offor

¹Department of Philosophy, University of Calabar, Nigeria

^{*}Corresponding author's email address: fruzoigwe@gmail.com ;
eliasuzoigwe@unical.edu.ng

ORCID 0000-0002-3809-7114; ²Department of Religion
and Human Relations, Nnamdi Azikiwe University, Awka,
Nigeria

amarachukwumaoffor@gmail.com; amchukwumaoffor@unizik.edu.ng

ORCID 0009-0003-4423-8029; +2348064622205

Abstract

This study emphasizes the crucial role of information and communications technology (ICT) in advancing education in Africa during the 21st century. Education, recognized as one of the most important industries, has been significantly enhanced by ICT tools such as computers, smartphones, projectors, social media platforms, email, and other internet-based resources. These technologies have helped address various educational challenges, including course allocation, timetable construction, examinations, and student performance assessment. Through critical analysis, the study highlights that knowledge of ICT is essential for educators, professionals, stakeholders, and students alike, serving as a foundational requirement for effective education in Africa. The research advocates for the full integration of ICT tools and expertise in teaching and learning to ensure that Africa remains competitive in a technologically advanced world. The increasing use of e-books and other digital learning tools underscores the need for Africa to adopt these changes and leverage ICT to address its unique challenges. Encouraging and promoting ICT knowledge across educational institutions is deemed indispensable for improving the continent's educational system and advancing its technological growth.

Keywords: Africa, Education, ICT, Institutions of Learning.

151 INFORMATION COMMUNICATION AND TECHNOLOGY (ICT) INTEGRATION ON ACADEMIC LEARNING AMONG STUDENTS

¹Godfrey Magona and ²Michael Adelani Adewusi

¹College of Education, Open and Distance Learning, Kampala International University

*Corresponding author's email address:

godfrey.magona@studmc.kiu.ac.ug

²School of Mathematics and Computing, Kampala International University, Uganda.

michael.adewusi@Kiu.ac.ug

orcid.org/0000-0002-8003-6761

Abstract

This study explores the impact of integrating information and communication technology (ICT) on academic learning among students in Mpigi Municipal Council, Mpigi District. It aims to uncover ICT's potential to transform education by facilitating engagement, collaboration, and resource accessibility. Specifically, the research investigates the relationship between ICT integration in administration and students' academic outcomes, the correlation between ICT integration in teaching and students' academic performance, and the influence of e-learning initiatives on students' learning experiences in Mpigi Town Council, Mpigi District. Employing a mixed-methods approach, the research utilizes quantitative surveys to gauge students' perceptions of ICT integration and its effects on academic performance. Additionally, qualitative interviews with educators and administrators offer insights into the challenges and opportunities associated with ICT implementation in Mpigi Municipal Council's educational setting. The findings indicate a significant correlation between ICT integration and improved academic outcomes, emphasizing the importance of strategic ICT initiatives in enhancing educational experiences. Furthermore, the study underscores the necessity for customized policies and infrastructure investments to ensure equitable access and effective utilization of ICT resources among students, thereby cultivating an optimal learning environment in the Mpigi Municipal Council.

Keywords: ICT Integration, Academic Learning, Education Transformation.

152 EXPLORING STUDENTS' PERCEPTION OF REMOTE ASSESSMENT IN LEARNING MANAGEMENT SYSTEM

Godwin Omoni Bupo

Department of Business Education, Rivers State University,
Port Harcourt

Abstract

This study focused on assessing the perception of 81 graduate students of the Business Education Department, Rivers State University, Port Harcourt, who undertook a research course with a blended learning approach, towards the online assessment that was carried out on a learning management system. The analytical survey research design was used. Two research questions were raised and one hypothesis was tested at the 0.05 level of significance. The instrument for data collection was a questionnaire adapted from the literature. The instrument was validated by experts in the field of business education. The reliability of the instrument was ascertained using Cronbach's alpha, which yielded a coefficient of 0.81. The findings of the study show that students perceived access to the online assessment to be easy. The students had a positive attitude towards the adoption of online assessments using a learning management system. It was recommended that lecturers should begin to adopt the integration of blended learning approaches in their teaching so that students can get used to the system. Also, the usage of computers should be a criterion for admission of students into postgraduate programs.

Keywords: Online Assessment, Learning Management System, Blended Learning, Moodle.

153 THE ROLE OF ENGLISH LANGUAGE EDUCATION IN FOSTERING SUSTAINABLE DEVELOPMENT PARTNERSHIPS: AN AFRICAN PERSPECTIVE

Hamza Adamu Soye

Federal College of Education (Tech.) Gombe State, Nigeria

Email address: hamzaadamu78@fctgombe.edu.ng

Abstract

This paper examines the critical role of English language education in fostering partnerships for sustainable development from an African perspective. As a global lingua franca, English serves as a bridge across diverse linguistic and cultural landscapes, enabling collaboration and communication essential for addressing the continent's multifaceted challenges. The study explores how English language proficiency can enhance educational opportunities, economic growth, and social integration, aligning with the United Nations Sustainable Development Goals (SDGs). By facilitating intercultural dialogue and effective communication, English language education supports the formation of robust partnerships between governments, non-governmental organizations, educational institutions, and the private sector in Africa. Through an analysis of case studies and best practices, the paper highlights successful English-language initiatives that have driven sustainable development

projects across the continent. Ultimately, this study underscores the importance of incorporating English language education into sustainable development strategies to promote inclusive and equitable progress in Africa.

Keywords: English Proficiency; Sustainable Partnerships; African Development.

154 ASSESSING THE EFFICACY OF MEDIATION AND DIALOGUE IN CONFLICT RESOLUTION: A CASE STUDY OF COMMUNITY-OIL COMPANY RELATIONS IN THE NIGER DELTA REGION OF NIGERIA

Patience Gontor

Department of Educational Management, Rivers State University, Nigeria

Abstract

Nigeria faces numerous sustainable development challenges, including insecurity (banditry, Boko Haram kidnapping), poverty, corruption, inequality, and environmental degradation. Effective leadership and collaboration are vital to addressing these issues. This paper explores the role of interdisciplinary partnerships in tackling Nigerian leadership challenges for achieving sustainable development goals in Nigeria. It discussed sustainable development as it affects Nigeria, identified leadership challenges, the importance of inclusive leadership and participatory governance, and the strategies for bridging disciplines through interdisciplinary partnerships, sharing knowledge, and fostering collaborative management and planning in leadership to tackle these complex challenges. It used case studies and examples to illustrate successful partnerships and initiatives. It argued that by emphasizing the importance of inclusive, realistic, and multi-stakeholder partnerships to drive sustainable development and overcome Nigeria's leadership challenges. The paper concludes that by embracing partnership and collaboration, Nigeria can unlock its full potential for sustainable development and build a brighter future for all. It recommended that the government encourage interdisciplinary research and collaboration; foster public-private partnerships and community engagement through deliberate programs; support inclusive leadership and participatory governance by granting full autonomy to local government; and leverage technology and innovation for enhanced collaboration, among others.

Keywords: Partnership, Sustainable Development, Leadership Challenges.

155 EFFECT OF FLIP TEACHING APPROACH ON COLLEGE OF EDUCATION STUDENTS' INTEREST AND ACHIEVEMENT IN ORDINARY DIFFERENTIAL EQUATION IN SOUTH-SOUTH GEO-POLITICAL ZONE, NIGERIA.

¹Betiag, Peter A., ¹Aniah-Betiag, Elizabeth Ishagba and ²Ubebe, Solomon Akwagiobe

¹University of Calabar

cestpiere@gmail.com <https://Orcid.Org/0009-0000-8268-2743>

lizzyisba@gmail.com ²Department Of Mathematics, Federal College of Education Obudu

<https://Orcid.Org/0009-0002-0271-4085>

ubebesolomon@gmail.com

Abstract

The study investigated the effect of the flip teaching approach on College of Education students' interest and achievement in Ordinary Differential Equation (ODE) in the South-South Geo-Political Zone, Nigeria. Two research questions and two hypotheses guided the study, which adopted a pretest-posttest non-equivalent group quasi-experimental design. The sample comprised 78 NCE III students in 2 intact and control classes drawn using the purposive sampling technique. Data were gathered using the ODE Interest Scale (ODEIS) and ODE Achievement Test (ODEAT), whose reliability indices were 0.75 and 0.73 obtained using the Cronbach Alpha and Kuder-Richardson-20 methods. Mean and standard deviation were used to answer the research questions, while ANCOVA was used to test the hypotheses at the 0.5 level of significance. Results showed that the flip teaching approach had a significantly positive effect on students' interest and achievement in ordinary differential equations than the traditional teaching approach. It was thus recommended that a flip teaching approach should be used in the teaching and learning of ordinary differential equations in colleges of education.

Keywords: Flip Teaching Approach, Interest, Achievement, Ordinary Differential Equation.

156 THE EXPERIENCES OF WOMEN IN CONFLICT SITUATIONS AND CRISES: A GLIMPSE INTO NORTHERN NIGERIAN WRITINGS

Zainab Abdulkarim

*Faculty of Arts, Department of English Language and Linguistics, Sokoto State University,
Email address and phone number:-*

Abstract

Women in conflict zones often face heightened risks of gender-based violence, including rape, abduction, and forced marriages. Conflicts often result in the displacement of populations. Women and children are particularly vulnerable during these migrations, facing precarious living conditions in refugee camps or as internally displaced persons. Writings from Northern Nigerians provide an essential glimpse into the multifaceted experiences of women in conflict situations and crises. These writers discuss the intersection of cultural expectations and the realities of living through conflict, offering a nuanced view of societal change. Some writers from Northern Nigeria often depict the psychological and physical trauma that women endure in such environments. They also highlight the loss of home, family members, and community, emphasizing the emotional and social toll of displacement. This research will analyze Helon Habila's *Chibok Girls*, Edify Yakusak's *After They Left*, Razinat Talatu. Muhammed's *My Daughter, My Blood*, Habiba Noor Alkali's *The Phantom Army*, and Hadiza El-Rufai's *An Abundance of Scorpions*. These narratives explore how disruptions lead to both challenges and opportunities for redefining women's roles in society. Through their writings, they provide a voice to the voiceless, bringing international attention to their plight and advocating for peace and justice. These narratives not only document the suffering and challenges faced but also celebrate the strength, resilience, and enduring spirit of women. By giving voice to their stories, they contribute to a broader understanding and awareness of the impacts of conflict on women and advocate for change and empowerment.

Keywords: Women, Conflict, Crises, Northern Nigeria, Writers.

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THE INFLUENCE OF EARLY INTERVENTION ON CHILDREN WITH SPECIAL NEEDS IN EARLY CHILDHOOD DEVELOPMENT IN SOUTHWESTERN NIGERIA: THE TEACHER'S PERSPECTIVE

^{*1}Olubusayo Victor Fakuade, ²Marilyn Adebisi Johnson and Mary ³Aminat Fakuade

¹School of E-Learning, College of Education Open and Distance Learning,

Kampala International University

^{*}Corresponding author's email address: olubusayo.fakuade@kiu.ac.ug,

[Http://Orcid.Org/0000-0002-2140-0260](http://Orcid.Org/0000-0002-2140-0260)

²Milwaukee Public School, Wisconsin, USA.

Email address: libword2@gmail.com

³Department Of Access, Special Needs & Early Childhood

Education,

Kampala International University

Email address: Aminat.fakuade@studmc.kiu.ac.ug

Abstract

The study titled *The Influence of Early Intervention on Children with Special Needs in Early Childhood Development in South-Western Nigeria: The Teacher's Perspective* explores the crucial role of early intervention (EI) in supporting children with special needs during their formative years. The research underscores the importance of EI in mitigating learning difficulties and promoting the holistic development of children with disabilities. Using a qualitative approach, the study examines teachers' perspectives on the effectiveness of EI practices in early childhood education across southwestern Nigeria. It reveals significant variations in the implementation and success of EI programs, largely influenced by factors such as teacher training, resource availability, and cultural attitudes towards disability. The study highlights the need for standardized EI practices and improved teacher education to ensure all children with special needs receive adequate support. Additionally, it identifies best practices, such as the use of individualized education plans (IEPs) and collaborative approaches, as essential for addressing learning deficiencies. The findings suggest that overcoming the challenges in EI implementation requires targeted professional development, increased resource allocation, and community engagement to foster a more inclusive educational environment. This research provides valuable insights for policymakers, educators, and stakeholders in enhancing early childhood education for children with special needs in Nigeria.

Keywords: Early Intervention, Special Needs, Teacher Perspective, Early Childhood Development.

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INTERSECTION OF TECHNOLOGY AND PEDAGOGY IN ENHANCING ENGLISH LANGUAGE TEACHING TO NON-NATIVE LEARNERS

^{*}Olufunke O. Olatoye and Omowonuola E. Diya
Department Of Science And Technology Faculty Of Education
Olabisi Onabanjo University, Ago-Iwoye, Ogun State, Nigeria

^{*}Corresponding author's email address and phone number:

olufunkeolatoye.oo@gmail.com,

Abstract

Pedagogy, the foundation of effective education, is crucial for students to comprehend subjects fully. This paper explores the integration of technology into pedagogical practices, specifically in teaching English to non-native learners. While technological tools like smart boards, online platforms, and YouTube tutorials offer significant advantages in facilitating self-paced learning and enriching the educational experience, the

paper also critiques potential drawbacks. These tools enhance lesson delivery through diverse media, making education more dynamic and adaptable to the evolving technological landscape. In the context of English language instruction, traditionally taught through theoretical methods, technology's incorporation offers substantial benefits, especially for young learners, by making learning more engaging and tailored to diverse needs. The paper advocates for policies and curricula that incorporate technology into teaching, encouraging the use of tools like smart boards and Zoom for large classes. It also recommends teacher training in modern technologies to optimize the role of technology in enhancing English language instruction.

Keywords: Pedagogy, Technology, Teaching, Learning.

159 THE AVAILABILITY AND UTILIZATION OF LABORATORY RESOURCE IN TEACHING AND LEARNING SCIENCE IN CONVENTIONAL SECONDARY SCHOOL IN KANO STATE.

Bashir Ibrahim

Federal Polytechnic Kabo.

Kampala International University

Email address and phone number:

Danbashirfagge1234@Gmail.Com

Abstract

This study examines the availability and utilization of laboratory resources in the teaching and learning of science in conventional secondary schools in Kano State. Laboratory resources, defined as the equipment and materials necessary for scientific research and experimentation, are essential for effective science education. Using a descriptive survey design, the study was guided by a checklist and two research questions, employing two questionnaires. A sample of 346 participants, including 30 science teachers and 316 students, was drawn from a population of 3,500 across ten selected secondary schools. The questionnaire, titled "Availability and Utilization of Laboratory Resources in Teaching and Learning Science" (QAUlRTLs), was validated by experts in measurements and evaluation. Descriptive statistics, such as simple percentage frequency tables, were used to analyze the data. The findings revealed that laboratory resources are largely unavailable in secondary schools. Despite the limited quantity and quality of available resources, teachers make effective use of them, and students better understand scientific concepts when conducting practical experiments. The study recommends that the government provide adequate laboratory facilities and resources, ensure the training of laboratory technicians, and incorporate laboratory practical activities into science assessments.

Keywords: Laboratory Resources, Science Education, Secondary Schools, Practical Learning.

160 SUSTAINABLE MOBILE TECHNOLOGY IN TEACHING AND LEARNING IN AFRICA: A CASE STUDY OF YORUBÁ LANGUAGE IN COLLEGES OF EDUCATION

***Emmanuel Lawani,²Ifeoluwa Oluwaseyi Ijiyera**

¹Science and Technology Education Unit, University of Ibadan,,

²Department of Educational Technology, Obafemi Awolowo University, Ile-Ife, Nigeria,

**Corresponding author's email address: elawani6941@stui.edu.ng, Ifeoluwaijiyera@gmail.com*

Abstract

This study investigates the use of mobile technology in the teaching and learning of Yoruba in Osun State's Colleges of Education. A total of 279 students participated in a descriptive survey aimed at understanding the types of mobile devices used, frequency of usage, and challenges encountered. Results indicate that 68.6% of students use smartphones, while tablets and other devices have a lower adoption rate. Mobile technology was frequently employed for note-taking, lecture recordings, and accessing Yorubá resources, with a mean usage score of 3.2 ± 13.95 . Gender did not significantly affect mobile technology use ($t = 0.28$, $df = 2$). Key challenges include limited availability of Yoruba language resources (76.8%), inaccuracies in automatic translations (77.2%), and infrastructural barriers such as erratic power supply (73.1%) and slow internet connections (74.5%). This study highlights the need for targeted interventions to address these barriers and improve mobile-assisted language learning in indigenous languages. The findings underscore the potential of mobile technology in promoting sustainable education and preserving indigenous languages.

Keywords: Mobile Technology, Yorubá Language, Language Learning, Sustainable Education, Indigenous Languages

161 EFFECT OF EDUCATIONAL LEVEL ON ATTITUDE TOWARDS THE PHYSICALLY CHALLENGED PERSONS IN KOGI STATE, NIGERIA

Aminu Ejiga

Department of Primary Education, Kogi State College of Education. Ankpá

Abstract

People living with physical challenges constitute part of the larger society and should be given the inclusive

opportunity to engage fully in societal activities. The plight of persons with disabilities in Kogi State, Nigeria, has attracted increasing concern over the years. Thus, the present study aimed to examine the variations in attitude towards the person with physical challenges in Kogi State based on educational level. The study adopted a cross-sectional research design. One hundred and seventeen ($n = 117$) participants randomly pooled from different locations in Kogi State, Nigeria, participated in the study. The participants completed a self-report measure of the modified version of the Attitudes towards Disabled Persons (SADP) Scale. The result revealed that the participants primarily showed positive attitudes towards persons with physical challenges despite their educational level. Also, the result of the simple linear regression conducted to test the hypothesis revealed that educational level does not predict attitude towards the physically challenged.

Keywords: Educational Level, Attitude, Physically Challenged, Disability.

162 CONSOLIDATING THE GAINS OF AFRICA'S CLIMATE CHANGE EFFORTS THROUGH SUSTAINED DIGITAL RECORDS MANAGEMENT

*Habib Shehu, ²Donald Enu

Management Information Systems, Kampala International University

College of Education, Distance & Open Learning Kampala International University, Uganda

ORCID ID: 0009-0000-4464-7074

*Corresponding author's email address:

habib.shehu@studmc.kiu.ac.ug

Abstract

This theoretical study focuses on how digital records management (DRM) might help Africa, a region that is especially vulnerable to climate change, increase the effectiveness of its climate action initiatives. Addressing climate change requires effective information management, and DRM makes obtaining dependable, long-lasting data on climate initiatives easier. The study examines how DRM has been successfully used in African climate programs and shows how it improves data utilization and policymaking. It also recognizes issues with data security, training requirements, and infrastructure restrictions. Africa can improve the planning and implementation of climate action by investing in DRM, enabling climate data to become an effective instrument for fostering resilience. In the end, robust DRM allows information and knowledge to be translated into practical measures and adaptation plans, greatly enhancing Africa's response to climate change.

Keywords: Consolidating Gains, Africa, Climate Change, Digital Records Management, Review

163 CURRICULUM REVIEW AND SUSTAINABLE DEVELOPMENT: THE PLACE OF ISLAMIC RELIGIOUS EDUCATION IN THE NEW NIGERIAN UNIVERSITIES CURRICULUM

Oniye, Olayinka Ibrahim

Department of Religions University of Ilorin, Ilorin, Nigeria

Email address: oniye.oi@unilorin.edu.ng

Abstract

Curriculum review is vital for educational development and achieving the Sustainable Development Goals (SDGs). It addresses societal changes and challenges, including socio-economic, political, environmental, and ethical issues. Nigeria is reforming its educational curriculum at all levels, with particular focus on religious education, including Islamic studies. Given Nigeria's religious diversity and recent religious crises, it is essential to design a curriculum that meets the country's needs, particularly concerning religious conflicts and the economic challenges faced by religious scholars. This paper employs qualitative research to evaluate the Islamic Studies program in the new Core Curriculum and Minimum Academic Standards (CCMAS) of Nigerian universities, emphasizing its alignment with SDGs. Findings indicate that the new curriculum aims to promote religious peace and harmony while producing graduates who can engage meaningfully in the broader world beyond religious circles. It balances religious pluralism with secular content but reveals areas needing improvement, particularly in deepening knowledge of the primary sources of Islam while integrating secular education. The study recommends better integration of Islamic studies with other religious curricula to foster peace and economic prosperity in Nigeria.

Keywords: Curriculum, Review, Religion, Education, Secularism.

164 EXAMINING THE ROLE GAMIFICATION IN ENHANCING STUDENTS' PARTICIPATION IN MATHEMATICS

David Okpanachi

Department of Mathematics, Kogi State College of Education, Ankpa

Abstract

Technology has increasingly been integrated into the educational systems of developing nations, including Nigeria. The trend has contributed immensely to developing many learning institutions and individual capacity building. The primary school system represents the beginning of learning and reflects a prime period for

developing learning attitudes. Teachers use homework to augment classroom learning and improve performance. However, indications suggest that primary school students avoid biology practicals. The present study examined the effect of a biology game app (Prodigy) on students' biology practicals. A quasi-experimental design was adopted, and the samples were grouped into experimental groups (N = 58), exposed to the Prodigy app, and the control group (N = 55), taught in conventional circumstances. The experiment consisted of 24 sessions over three months. Participants were engaged in two sessions per week, lasting about 50 minutes. The findings indicated a mean difference (MD = 12.71) between the post-test study groups. Also, the result revealed a significant difference between the experimental and control groups on biology practical t (111) = 6.132, p = .001. The result has implications for practical biology development.

Keywords: Homework Behaviour, Prodigy, Gamification, Students, Primary School.

165 DIGITALIZATION OF MANAGEMENT AND LEARNING OF SOCIAL STUDIES EDUCATION: CHALLENGES AND STRATEGIC OPTION

louisa O. Unugo

Department of Social Studies Ebonyi State College of Education, Ikwo.

Email address: obyunugo@gmail.com,

Abstract

Teaching has evolved from traditional methods to a modernized system that integrates new technologies, necessitating that teachers adapt to these changes. Today's students are more familiar with the digital world, which presents challenges for educators to demonstrate their effectiveness in teaching. Digital learning enhances the incorporation of modern technology and tools, facilitating innovative approaches to teaching and learning. It promotes remote learning and enables students to engage with educational content in new ways. In this digital era, teachers serve as vital links to the knowledge community. While face-to-face teaching was previously favored for its advantages, the COVID-19 pandemic has accelerated the adoption of digital learning innovations and educational technology. This paper explores the benefits of digital learning in social studies education while addressing challenges such as the resistance of some educators to adapt, limited access to digital infrastructure, technical difficulties, and issues with digital literacy. Recommendations include enhancing the capacity of social studies teachers through professional development programs to foster a positive attitude towards ICT and digital learning, improving funding for digital technology resources, mentoring

staff in digital learning, and ensuring that technology devices and tools are reliable for effective results.

Keywords: Digital Learning, Social Studies Education.

166 EDUCATIONAL MANAGEMENT AND EMERGING TECHNOLOGIES FOR ACHIEVING SUSTAINABLE DEVELOPMENT GOALS IMPLICATION FOR SUPERVISION

¹Ategwu, Patrick Ogar, ²Etta Robert Bikom, ³Igigli, Joseph Ungwugwaye and ⁴Ukume, Gladys Denis

¹Department of Educational Management University of Calabar,

**Corresponding author's email address: patrickategwu@gmail.com, bobetta@unical.edu.ng*

, ²Department of Religions and Cultural Studies University of Calabar josephigligli@yahoo.com, ³Department of Library and

Information science University of Calabar, Calabar Nigeria,

⁴Arts Education Department University of Calabar, Calabar

Abstract

This paper basically explores the emerging technologies in educational management for achieving the sustainable development (SDGs) as well as their implications for effective supervision. Tangible advantages of Information Communication Technology (ICT) usage for efficiency and effectiveness have led to the wide utilization of technological items such as computer etc for the operation and management of school organization. Emerging technology such as computers help Educational Management in finding creative solutions for complex allocation problems and timetable construction. This paper highlights concepts of educational management, ICT as an actor in educational management, importance of SDGS to classroom management and effective strategies of managing education to achieve SDGS. Emerging technology, an actor of educational management in achieving SDGs. The paper concludes that the drive towards educational management facilitates grounding of SDGS and accounts for the learner's ability to freely participate in the learning process. It recommends that in order to strengthen SDGS, professional development must include teacher education, professional education for educational leaders and community educators, education of extension officers, business trainees, journalists and others involved in education in its widest sense which are equally critical.

Keywords: Educational Management, Emerging Technologies, Sustainable Development Goals, ICT.

167 RELATIONSHIP BETWEEN TEACHER'S LIKABILITY AND STUDENT'S PERCEPTION OF EDUCATION

Idoko Sunday Agaba

*Department of Education, Kogi State College of Education,
Ankpa*

Abstract

Biology is one of the most important scientific disciplines taught in Nigeria's secondary school curriculum. Students' poor performance in biology has become a growing concern. This study aimed to see if teacher likability could impact students' views about biology. A cross-sectional survey was used in this investigation. The survey's participants are secondary school students from Kogi State, Nigeria. Male and female senior secondary school students took part in the study. Most of them came from science class. A total of 139 students were involved in the research. Data was collected using a teacher's likability scale and the biology attitude scale (PAS). The results revealed that most respondents had a negative attitude toward the subject ($M = 0.87$, $SD = 0.35$), while only a handful ($M = 0.08$, $SD = 0.39$) had a favorable attitude. A linear regression model was used to test the central hypothesis. The findings revealed that teachers' likability statistically significantly influenced students' attitudes toward biology (1,137), 40.16 p.05. According to the findings, a teacher's likability predicts students' attitudes toward biology. As a result, it is suggested that teachers act more as facilitators than harsh educators.

Keywords: Teacher's Likability, Students, Attitude, Biology.

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INTEGRATION OF VOCATIONAL SKILLS INTO THE CURRICULUM OF ISLAMIC STUDIES: THE PROSPECT AND CHALLENGES

Yahya, Shaykh Ahmad

*Department of Religions University of Ilorin, Ilorin, Nigeria
Email address: yahya.as@unilorin.edu.ng*

Abstract

Islamic Studies graduates face challenges in employability, as they are often viewed merely as custodians of religious institutions rather than job creators. This perception leads many parents to discourage their children from pursuing the discipline unless necessary. This paper proposes incorporating vocational skills into the Islamic Studies curriculum to enhance graduates' ability to sustain themselves and compete in diverse fields. Islamic Studies, being a broad discipline, extends beyond traditional preaching and teaching to intersect with other sciences and branches of learning, offering potential for productivity and employability. Through qualitative research, the study revealed that acquiring practical skills can transform the discipline, counter societal prejudice, and improve the livelihoods of its graduates. It also

found that Islamic Studies students are well-suited for such training due to their exposure to theoretical aspects of vocational skills. The paper recommends designing a new curriculum that integrates vocational training to promote employability, productivity, and societal acceptance of Islamic Studies graduates.

Keywords: Vocational Skills, Graduates, Productivity, Employment, Transformation.

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AN EXAMINATION OF PERCEPTUAL AND PRODUCTION PROCESSES AMONG ESL HARD-OF-HEARERS

¹Sulaiman Muhammad Isa, ²Hamisu Hamisu Haruna and ³Ahmed, Abdulazeez

¹Department of Education Foundations, Kampala International University, Uganda,

²Department of English, Al-Qalam University Katsina, Katsina State Nigeria,

³A Professor of Otolaryngology, Clinical Sciences, Bayero University Kano, Nigeria

**Corresponding author's email address and phone number: isa.sulaiman@kin.ac.ng, bhhamisu@gmail.com, drabmedziz@yaboo.com*

Abstract

The ongoing discourse on the correlation between speech perception and speech production in the second language literature has not led to any clear results. The aim of this study is to investigate how the level of second language proficiency might influence the speech perception and production of ESL hard-of-hearing patients. This study is based on gestural concepts, in particular Direct Realist Theory and Motor Theory. The patients in the study were 66 hearing impaired patients selected from the Ear, Nose, and Throat (ENT) unit of Aminu Kano Teaching Hospital, Kano State, Nigeria. To collect the data, speech audiometry was used in conducting a hearing test. In the test, words are transmitted through headphones for each participant to listen to and then pronounce aloud. The data was subjected to a descriptive analysis. The results showed that patients tend to rely on phonetic gestures rather than acoustic cues when perceiving verbal communication. This shows the correlation between speech perception and speech production abilities, both of which are innate and result from the complex structure of the brain.

Key word: speech production, speech perception, hard-of-hearers, Aminu Kano Teaching Hospital AKTH

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SELF-MOTIVATION IN EDUCATION: THE ROLE OF SOCIOECONOMIC STATUS AND SUBSTANCE ABUSE

Ojoma Ejeh Patricia

Abstract

The ongoing discourse on the correlation between speech perception and speech production in the second language literature has not led to any clear results. The aim of this study is to investigate how the level of second language proficiency might influence the speech perception and production of ESL hard-of-hearing patients. This study is based on gestural concepts, in particular Direct Realist Theory and Motor Theory. The patients in the study were 66 hearing impaired patients selected from the Ear, Nose, and Throat (ENT) unit of Aminu Kano Teaching Hospital, Kano State, Nigeria. To collect the data, speech audiometry was used in conducting a hearing test. In the test, words are transmitted through headphones for each participant to listen to and then pronounce aloud. The data was subjected to a descriptive analysis. The results showed that patients tend to rely on phonetic gestures rather than acoustic cues when perceiving verbal communication. This shows the correlation between speech perception and speech production abilities, both of which are innate and result from the complex structure of the brain.

Key Words: Speech Production, Speech Perception, Hard-Of-Hearers, Aminu Kano Teaching Hospital Akth.

171 RECORDS MANAGEMENT IN POLYTECHNIC EDUCATION: A SURVEY OF PRACTICES AT THE INSTITUTE OF CONTINUING EDUCATION, FEDERAL POLYTECHNIC NASARAWA

¹Habib Shehu and ²Janice Desire Busingye

¹Management Information Systems School of Mathematics and
Computing, Kampala International University, Uganda,

*Corresponding author's email address:

habib.shehu@studmc.kiu.ac.ug

<http://orcid.org/0009-4464-7074>

<https://orcid.org/0000-0002-2933-3023>

²Kampala International University, Uganda.

janicedesire@gmail.com <http://orcid.org/0009-4464-7074>

Abstract

This study investigates the records management system at the Institute of Continuing Education, Federal Polytechnic, Nasarawa State, Nigeria. Recognizing the pervasive issues in record-keeping within the education sector, particularly in polytechnics, the research highlights the challenges associated with predominantly paper-based and manual operations, despite previous attempts to modernize through technology. Employing a case study design, the study collected data from

15 staff members using structured questionnaires, achieving a 93.3% response rate. The findings reveal that while current practices largely rely on traditional methods, significant barriers exist, including inadequate funding, a lack of clear policies, and insufficient training. Furthermore, the study identifies the benefits of effective records management, such as improved decision-making and operational efficiency. Recommendations emphasize the need for enhanced electronic records management practices, increased funding for necessary infrastructure, and organized training initiatives for staff and students to cultivate a culture of effective record management. Overall, the study underscores the critical importance of robust records management systems in supporting institutional goals and operational integrity.

Keywords: Institute of Education, Management, Management System, Nasarawa, Polytechnic

172 RELATIONSHIP BETWEEN PSYCHOLOGICAL EMPOWERMENT AND EXERCISE PARTICIPATION

Selina Ibidun Akpata

Department of Educational Curriculum, Kogi State College of
Education, Ankpá

Abstract

This study explores the relationship between psychological empowerment and exercise participation among adults in Ankpá, Kogi State, Nigeria. Psychological empowerment, characterized by a sense of control, competence, and goal internalization, is hypothesized to positively influence exercise participation. A cross-sectional survey design was employed, involving 300 adults aged 18-65 years, selected through stratified random sampling. Data were collected using validated questionnaires measuring psychological empowerment and exercise participation levels. The results indicated a significant positive correlation between psychological empowerment and exercise participation ($r = 0.45$, $p < 0.01$). Specifically, individuals with higher levels of psychological empowerment reported more frequent engagement in physical activities. Further analysis revealed that components of psychological empowerment, such as self-efficacy and perceived control, were strong predictors of exercise behavior. These findings suggest that enhancing psychological empowerment could be an effective strategy to promote regular exercise among adults in this region.

Keywords: Psychological Empowerment, Exercise Participation, Physical Activity

173 EXPLORING THE ROLE OF RELIGIOUS COMMITMENT ON HEALTHCARE SEEKING BEHAVIOR AMONG ADULTS IN ANKPA, KOGI STATE

Sunday Idakpo

Department of CRS Kogi State College of Education, Ankpa

Abstract

In recent years, efforts have been devoted to enhancing the health care system of Nigeria to provide efficient and reliable health care services to the people. However, insinuations suggest that many people are not utilizing the available healthcare facilities, especially in rural communities. Perhaps religious attachment is a significant determinant of several behavioral domains. The present study aimed to examine variations in HSB among the rural dwellers of Kogi State, Nigeria, based on religious commitment. Two hundred and sixty-nine Muslim and Christian worshipers chosen from religious centers in different locations of the state participated in the study. The respondents completed a self-report measure of healthcare-seeking behavior and the religious commitment inventory. The result of regression analysis indicated a positive influence of religious commitment on healthcare-seeking behaviors in rural populations. It was concluded that religious commitment should be included in the focus of the health care providers in providing all-inclusive care for rural dwellers in Kogi State.

Keywords: RC, HSB, Rural Dwellers

174 AN IMPROVED CLASSIFICATION MODEL FOR PREDICTION OF POTABLE WATER USING MULTILAYERS PERCEPTRON NETWORKS

¹Adeleke Raheem Ajiboye, ²Shefiu Olusegun Ganiyu, ³Yusuf Abbas Aleshinloye and ⁴Vaithiyalingam.S Manjula

^{*1,3,4}Department of Computer Science, Kampala International University, Uganda

²Department of Information Technology, Kampala International University, Uganda

**Corresponding author's email address and phone number: ajibraheem@kiu.ac.ug*

Abstract

Potable water is generally known as any water that is considered clean and safe for human consumption. Water in such a category also has more uses than just drinking; its importance, therefore, cannot be overemphasized. Non-potable water has a wide variety of uses too; however, it may not be suitable for human contact or consumption. Water is made up of

a number of attributes; if the value of these attributes is on the high side of normal, it can render the water non-potable. The objective of this study was to develop a predictive model capable of predicting potable water. To achieve this central goal, we retrieve relevant datasets from an online open repository, Kaggle. The datasets comprised over 3000 records. The retrieved dataset was preprocessed to fit a predictive model using a supervised learning approach in multilayer perceptron networks. The feed-forward network structure created was trained using the Levenberg-Merquarts algorithm. The objective function used to determine the model's performance during the training process was mean square error. The model was evaluated, and the accuracy of the model shows that the model is 88.5% accurate. Further simulation of the model using untrained data shows consistency in accuracy. The model created is, therefore, found to be very reliable for binary classification purposes.

Keywords: Multilayer Perceptron, Predictive Model, Potable Water, Classification.

175 BRIDGING DISCIPLINES, SOLVING AFRICAN COMPLEX CHALLENGES THROUGH LANGUAGE EDUCATION FOR SUSTAINABLE PARTNERSHIP AND DEVELOPMENT

Natahn Joshua Tomtsu

Email address: nathanjtontsu@gmail.com

Abstract

This paper explores the critical role of partnerships in sustainable development, particularly emphasizing how interdisciplinary collaboration and language education can address Africa's multifaceted challenges. Sustainable development in Africa faces unique obstacles, including economic disparity, political instability, environmental degradation, and social inequities. To effectively tackle these issues, there is a pressing need for holistic approaches that bridge diverse disciplines and integrate local contexts. Language education emerges as a pivotal tool in this endeavor, fostering communication, cultural understanding, and inclusive participation. Leveraging on partnerships between educational institutions, governments, non-governmental organizations, and local communities, language education can be tailored to meet the specific needs of African societies. These partnerships can enhance educational access, promote multilingualism, and support the preservation of indigenous languages, thus reinforcing cultural identities and social cohesion. Furthermore, interdisciplinary collaboration can enrich language education by incorporating insights from fields such as environmental science, public health, economics, and political science, creating a more comprehensive and adaptable curriculum.

The paper argues that through strategic partnerships and a commitment to interdisciplinary methods, language education can significantly contribute to solving Africa's complex challenges. By empowering individuals with the skills and knowledge to engage in sustainable practices and policy-making, such initiatives can drive progress towards achieving the Sustainable Development Goals (SDGs) across the continent. Ultimately, this integrated approach underscores the transformative potential of education in fostering sustainable development and resilience in African communities.

Keywords: Disciplines, African Complex Challenges, Language Education, Sustainable Partnership, Development.

176 THE GREAT ACADEMIC EXODUS: UNVEILING THE IMPACT OF WORKING CONDITIONS CRISIS ON BRAIN DRAIN IN NIGERIAN UNIVERSITIES

Odey Clarence Odey, Chikordiri Nwangwu,
Celestine Ochu Udeh

Corresponding author's email address: Odeyclare@unical.edu.ng

Abstract

The study highlights a severe brain drain among young lecturers, with over 10,000 academics leaving Nigeria between 2009 and 2018. The literature is replete with an avalanche of documentary evidence of factors responsible for this plague on the sustainability of the Nigerian university system. However, that remains inadequate. This study interrogated the impact of the working condition crisis on the pervasive brain drain syndrome within Nigerian universities from the perspective of the dispute between the Federal Government of Nigeria (FGN) and the Academic Staff Union of Universities (ASUU). Anchored on the human capital flight theory, the study adopted the time series research design and relied on survey and documentary data collection methods. The population comprised ASUU members, student-leaders and management staff in federal universities and federal civil servants in the Ministries of Education and Labour. Using the cluster sampling technique, the population was grouped into six geopolitical zones of Nigeria. Three zones and a federal university each were selected through a simple random sampling technique. Respondents were selected through purposive and accidental sampling techniques. Key informant interviews (KII) and focus group discussions (FGD) were used to get data from 30 lecturers, 60 students and 10 senior staff of the Federal Ministries of Education and Labour. Data were analysed using the qualitative descriptive method. The study discusses the 2009 Agreement between FGN and ASUU, which aimed to address the crisis but failed to bring about substantial

improvements. Results show that the principal causes are linked to inadequate salaries, delayed payment of earned academic allowances, and insufficient fringe benefits. Additionally, the study presents comparative data on university lecturers' salaries worldwide, illustrating Nigeria's lag in providing competitive remuneration. Recommendations include renegotiating the 2009 Agreement to stem the brain drain and its adverse impact on Nigeria's educational quality and broader developmental trajectory.

Keywords: Brain drain, Dispute, University, Working conditions.

177 INTEGRATION OF VOCATIONAL SKILLS INTO THE CURRICULUM OF ISLAMIC STUDIES: THE PROSPECT AND CHALLENGES

Yahya Shaykh Ahmad

Email address: yahya.as@unilorin.edu.ng

Abstract

One of the challenges confronting Islamic Studies as a discipline is employability of the graduates of the profession. This is not unconnected to the relegation of the experts of religious studies to custodians of mosques, churches, shrines, and temples among others. They are not seen as employers of labour and job creators but job seekers and dependents, hence most parent prevent their children and wards from embarking on religious studies, except in cases of necessity or heritage. The aim of this paper is to propose the necessity of incorporating vocational skills into the program so that the graduates of the course would be able to harness the skill acquired for sustenance and compete with their counterpart in various endeavors. The reason is that Islamic Studies is a broad discipline with a wider scope outside the traditional preaching, teaching and administrative roles. It is indeed a conflux where other sciences and other branches of learning derive inspiration for productivity. Through the use of qualitative type of research, the study unveiled that the acquisition of different skills by graduates of the course will transform the discipline, endear it to the populace who have treated students of the discipline with prejudice and contribute enormously to the livelihood of the graduates hampered by the non lucrativeness of the course in the country. The paper uncovered that the students of the discipline are trainable because of their exposure to the theoretical aspects of those vocational skills and recommended that the design of a new curriculum that can cater for the proposition.

Keywords: Vocational Skills, Graduates, Productivity, Employment, Transformation.

EXPLORING THE IMPACT OF BRAIN DRAIN ON HIGHER EDUCATION RELATIONS BETWEEN TURKEY AND UGANDA

Ibrahim Hakan Karataş and Pamela Atukundire

Corresponding author's email address: ihkararas@gmail.com

Abstract

The primary purpose of this study is to explore the impact of brain drain on the academic and institutional relationships between Turkey and Uganda, with a particular focus on the migration of skilled scholars and students. This research investigates how the movement of talent from Uganda to Turkey influences the capacity of Ugandan higher education institutions, while also analyzing Turkey's role in attracting and retaining these individuals. Utilizing a qualitative research design and a phenomenological approach, semi-structured interviews were conducted with a sample of Ugandan academics and students who have participated in academic exchange programs or have permanently relocated to Turkey. The study employed purposive sampling to select participants, ensuring a diverse range of perspectives from various academic disciplines. Data were analyzed through thematic coding, allowing for an in-depth exploration of the motivations, experiences, and long-term consequences of brain drain for both countries. Preliminary findings suggest that while Turkey's scholarship programs and academic opportunities provide significant benefits to individuals, they also contribute to a depletion of academic resources in Uganda. The study highlights the need for bilateral policies aimed at fostering sustainable academic collaboration while mitigating the adverse effects of brain drain on Uganda's educational infrastructure.

Keywords: Brain drain, Higher Education, Turkey, Uganda, Scholarship.

POVERTY REDUCTION PROGRAMMES AND THE ATTAINMENT OF SUSTAINABLE DEVELOPMENT GOAL ONE (1) IN NORTHERN SENATORIAL DISTRICT OF CROSS RIVE

Betieng, Peter A, Aniashi, Benedict U., Basake Julius A, Adie Joy, B & Ani Augustine U.

Department of Access, Early Childhood and Special Needs Education

Kampala International University, Gbaba Road, Uganda

Corresponding author's email address: peter.betieng@kiu.ac.ug,

Abstract

This study investigated the relationship between poverty reduction programmes and the attainment of sustainable development goal one (1) in Northern Senatorial District of Cross River State, Nigeria. Two null hypotheses were formulated and tested at .05 alpha level. A correlational survey research design was adopted with a sample of 518 respondents selected from the population of 2,590 adults registered in the various Community Development Associations in the study area. A self-developed and validated questionnaire titled; Poverty Reduction Programmes and the Attainment of Sustainable Development Goal One was used to collect data for the study. The reliability of the instrument was done using Cronbach alpha reliability and result showed the reliability index ranged from .72 to .86. Simple regression analyses was used for data analysis. The results revealed that agricultural activities (peasant farming) and educational activities (functional literacy) has a significant relationship with the attainment of sustainable development goal one. Based on the result of the findings, it was recommended among others that functional literacy centres should be established in each community in the study area so as to help addressing the challenges posed by poverty in the study area.

Keywords: Poverty reduction programmes, Sustainable development goals, zero poverty, peasant farming, functional literacy.

VIOLATION OF STUDENTS HUMAN RIGHTS BY SECONDARY SCHOOL ADMINISTRATORS IMPLICATIONS FOR STUDENTS' PERSONAL ADMINISTRATION IN CROSS RIVER STATE, NIGERIA

***¹Basake Julius Alochere, ¹Betieng, Peter A. and
²Anashie Ambrose Beluaye and ¹Iqra Aweys
Ahmed**

*¹College of Education Open and Distance Learning Kampala
International University Uganda*

*²Quality Assurance Department Zonal Directorates office State
Ministry of Education Ogoja Cross River State- Nigeria.
anashieambrose@gmail.com*

*Corresponding author's email address: julius.basake@kiu.ac.ug
peter.betieng@kiu.ac.ug*

0000-0001-9465-9022 0000-0001-98733-533

Abstract

This research examined how secondary school administrators regarded the human rights of students and the consequences for personal administration in Cross River State, Nigeria. The research used a descriptive survey methodology for data collection. The study's research questions were established based on seven research topics and the subsequent assumptions.

The participants included 5,459 administrators and educators from 221 public secondary schools in Cross River State. The research included 585 educators and administrators who followed a multi-stage screening procedure for participation. The data collecting method used was a researcher-developed questionnaire titled Violation of Students' Human Rights by Secondary School Administrators: Potential of Student Personal Administration Questionnaire (VSHRSSASPAQ). The study's facilitators included three experts: two from the Department of Educational Foundations and one from the Department of Science Education within the College of Education, Open Distance, and e-Learning, all of whom validated the instrument. Kampala International University, Uganda. We used the Cronbach Alpha method to evaluate the instrument's reliability, yielding a Cronbach Alpha value of 0.97. We will use two descriptive statistics, the mean ($\bar{x}$) and the standard deviation (SD), to solve the study's issues. We evaluated the null hypotheses with t-test statistics at a 0.05 alpha level. The inquiry found that the principal violated the student's rights to free speech, assembly, and religious freedom. The report encouraged administrators to refrain from imposing prohibitions on students and to ensure that pupils comprehend the relevant school regulations. The Secondary Education Board shall guarantee that the limitation or optional status of students' freedom of worship does not promote a singular faith.

Keywords Violation Students, human rights, Secondary Schools, Administrators, Implications and Personal Administration

SCIENCE, TECHNOLOGY, ENGINEERING & MATHEMATICS

181 A REVIEW ON RADIO FREQUENCY FIELD EXPOSURE EFFECTS OF PEOPLE LIVING NEAR MOBILE BASE STATIONS IN UGANDA

***Tuhame William and Michael Adelani Adewusi**

School of Mathematics and Computing, Kampala International University, Uganda

**Corresponding author's email address: william.tuhame@studmc.kiu.ac.ug michael.adewusi@Kin.ac.ug*

Abstract

In recent years, the proliferation of telecommunication infrastructure, including mobile phone base stations and wireless communication antennas, has raised concerns

about the potential health effects of radiofrequency (RF) field exposure, particularly for individuals living near these installations. This paper aims to review the existing literature on the effects of RF field exposure on people residing in close proximity to mobile base stations in Uganda. Specifically, the paper will examine the health-related implications of RF exposure, considering both environmental and biological impacts. Drawing on current studies from various regions worldwide, the review will assess the level of RF exposure among individuals in different regional settings within Uganda. Furthermore, the paper will explore RF effect reduction mechanisms and provide recommendations for mitigating potential risks. By raising awareness of these issues and offering practical recommendations, this paper seeks to inform public discourse and guide future planning and deployment of telecommunication networks in Uganda.

Keywords: Base Station, Health Effects, Electromagnetic Fields, Radiofrequency.

182 UNSTEADY MHD FRRE CONVECTIVE FLOW PAST A VERTICAL OSCILLATING PLATE THROUGH A POROUS MEDIUM WITH HEAT SOURCE AND Soret EFFECTS

***Sufiyanu Muhammad Dakin-Gari,^{2,3} Ibrahim D Yale, M.N. Sarki² and ⁴Aisha Umar Dakin Gari**

¹*Department of Mathematics, Kebbi State Polytechnic, Dakingari, Nigeria.*

²*Department of Mathematics, Kebbi State University of Science and Technology, Aliero, Nigeria.*

³*Department of Basic Science, Faculty of Science and Technology, Kampala International University, Western Campus, Uganda*

⁴*Department of Mathematics, Federal University Birnin-Kebbi, Nigeria*

**Corresponding author's email address: Sufiyanumhammad77@gmail.com*

Abstract:

A numerical solution of unsteady MHD flow past a vertical oscillating plate through a porous medium in the presence of a heat source and the Soret effect is presented. The dimensionless governing equations, which are coupled and nonlinear, were solved numerically using the implicit finite difference scheme. Graphical results for the velocity, temperature, and concentration profiles based on the numerical solutions are presented and discussed. The influence of various different physical parameters such as magnetic field parameter, radiation parameter, Schmidt number, Prandtl number, mass Grashof number, heat source parameter, and Soret number parameter has been presented graphically. The numerical computation carried out shows that an

increasing heat source parameter enhances fluid velocity and temperature, while the opposite phenomenon is observed for growing values of the magnetic field parameter. A higher value of the Soret parameter increases both velocity and concentration of the fluid.

Keywords: Unstable, Porous Medium, MHD, Heat Source, Soret

183 A NOVEL FRAMEWORK FOR FAKE NEWS ANALYSIS AND DETECTION USING DEEP LEARNING

¹Umoru Yahaya Ibrahim, ²Rajesh Prasad, ³Bisallah Hashim Ibrahim and ⁴Ogwueleka F.N.

^{1,4}*Department of Computer Science University of Abuja, Nigeria,*

³*Department of Computer Science Kampala International University, Uganda*

²*Department of Computer Science African University of Science and Technology, Abuja, Nigeria* *Corresponding author's email address: umoru71@yahoo.ca, rprasad@aust.edu.ng, hashim.bisallah@kin.ac.ug, francisca.ogwueleka@uniabuja.edu.ng

Abstract

Machine learning classifiers have been used to identify and distinguish between legitimate and false news sources. On the ISOT fake news dataset, extensive research has been done on the analysis and identification of fake news using machine learning algorithms, although a more accurate design is still required. This study uses deep learning algorithms to create and apply a systematic process for spotting false news. On the ISOT fake news dataset, a deep learning algorithm was used to distinguish between fake news and real news. By cleaning the data and managing the data imbalances more effectively, deep learning performed better than existing state-of-the-art approaches. The correctness of the suggested design is 95.4%. The proposed method outperforms the existing classifiers, which have a 99.99% accuracy rate.

Keywords: Fake News Detection, Machine Learning, ISOT Dataset

184 DESIGNING A FRAMEWORK FOR INTEGRATING ARTIFICIAL INTELLIGENCE INTO ELECTRICAL AND ELECTRONICS TECHNOLOGY EDUCATION CURRICULUM IN NIGERIAN COLLEGES OF EDUCATION

Abdullahi, Umar and Ezugu, L. C.

*Corresponding author's email address:

umarsanda197@gmail.com

Abstract

Rapid advancements in artificial intelligence (AI) technologies offer a significant chance to change course offerings, especially in Electrical and Electronics Technology Education (EETE) in Nigerian colleges. This paper emphasizes the critical need for a well-organized framework to incorporate AI into the EETE curriculum in order to give students the abilities and information they need to succeed in a technological environment that is becoming more and more AI-driven. The paper addresses infrastructure development, educator training, curriculum redesign, and ethical considerations as the main points of emphasis for the proposed framework. Students will obtain practical experience and improve their problem-solving skills by integrating AI concepts, tools, and applications into the curriculum. The framework also emphasizes how crucial it is for educators to pursue ongoing professional development in order to stay up to date on the latest developments in artificial intelligence. It also promotes ethical considerations in order to keep curricula current and aligned with technology advancements. With this integrated approach, graduates with a strong grasp of AI should be able to spearhead innovation in Nigeria's electrical and electronics technology education sectors. The study ends with strategic recommendations for how legislators, heads of institutions of higher learning, and business partners can work together to create an atmosphere that will enable the successful integration of AI into the EETE curriculum, improving the caliber and applicability of technical education in Nigeria.

Keywords: Artificial Intelligence Integration; Electrical and Electronics Technology

185 GUARANTEED PURSUIT TIME OF A DIFFERENTIAL GAME WITH GENERALIZED INTEGRAL CONSTRAINTS

Ahmad Yahaya Haruna

Federal Polytechnic Kano, Kano, Nigeria.

Email address and phone number: aybahmadyahaya@gmail.com

Abstract

In this paper, we study a pursuit differential game with countably infinite pursuers and a single evader in the Euclidean space. Players' motion obeys certain linear first-order differential equations, and the control functions of both pursuers as well as evaders are subject to generalized integral constraint. We obtain sufficient conditions for completion of pursuit and an explicit formula for the guaranteed pursuit time T . Moreover, pursuers' strategy that ensures completion of pursuit at time T was constructed, and also an illustrative example was provided.

Keywords: Pursuit Differential Game, Control

186 DETERMINATION OF MOISTURE CONTENT AND REFRACTIVE INDEX OF HONEY OBTAINED FROM BIRNIN-KEBBI MARKET

*Aliyu Saidu, Aati Rilwanu and Garba D. Sani

Department of Sciences, Kebbi State Polytechnic Dakingari,
Nigeria

*Corresponding author's email address: garbadsani@gmail.com

Abstract

Honey, which has been used as a food and medicine since ancient times, contains mainly carbohydrates and other minor constituents, including proteins, amino acids, lipids, organic acids, minerals, and vitamins. It is a naturally sweet food produced by the *Apis mellifera* bees, which collect the plant nectars, secretions, or secretions of insects feeding on these parts and then produce the honey after a series of specific treatments. Adulteration of the honey affects its nutritional and medicinal value. This prompts for its quality to verify the authenticity of the product and to reveal the possible presence of artificial components or adulteration. In this research, ten (10) different samples of honey are randomly obtained from Birnin Kebbi market, and their moisture contents, brix value, and refractive indices are determined. From the results, Sample 2 has the highest moisture content (15.5%), while Sample 6 has the least moisture content (1.3%). The higher the moisture contents, the lower the quality, and vice versa. On the other hand, sample eight (8) has the highest brix value (85.8), and sample 1 has the least (60). However, the entire result shows that the honey is relatively within the accepted values for consumption.

Keywords: Moisture, Brix Value, Refractive Index, Honey, Birnin Kebbi

187 THE GLOBAL IMPACT OF CLIMATE CHANGE: MITIGATION STRATEGIES AND HEALTH IMPLICATIONS

*¹Kabiru Umar, ²Haruna Dauda, ³Bashir Ibrahim, ³Shuaibu Barau Abubakar and ⁴Musaddiq Balarabe Wakili

Federal Polytechnic Kano, Kano State, Nigeria).

*Corresponding author's email address and phone number:

garbadsani@gmail.com, kabiruu15@gmail.com.

Abstract

One pressing worldwide issue that needs immediate attention and action is climate change. Reducing carbon emissions, implementing sustainable agricultural methods, utilizing renewable energy sources, encouraging

energy efficiency, and endorsing environmental-focused laws are a few strategies to combat climate change. Small adjustments to daily routines, such as cutting back on energy use, taking public transit, and purchasing eco-friendly goods, can have a big impact. To secure a sustainable future for our world, it is imperative that each and every person contribute in some way to combating climate change. Global fisheries are already being impacted by climate change. Some fish migrate to colder seas outside of their typical range as a result of the warming brought on by climate change. Changes in rainfall due to climate change can increase the population of disease-carrying mosquitos. This could lead to an increase in malaria, Africa's leading cause of death. Scientists have observed that malaria is already moving to higher elevations in Africa, owing in part to climate change. According to predictions, malaria dispersion will increase by 6-8% by the end of the century. A warmer atmosphere with more rainfall can also lead to an increase in the prevalence of other dangerous diseases like yellow fever. In addition to these ailments, the poor air quality that frequently occurs during a heat wave can cause breathing problems and worsen respiratory conditions. To maintain our planet's long-term viability, everyone must contribute to climate change mitigation efforts.

Keywords: Climate Change Adaptation, Climate Change Mitigation, Climate Variability, Emissions

188 A REVIEW ON MORINGA AND NEEM LEAVES POTENCY ON PHOTOCATALYTIC ACTIVITY AND DYE SENSITIZED SOLAR CELL

*¹Garba D. Sani, ²Abubakar Yakubu, ¹Suleiman Sahabi, ¹Aminu M. Bello

¹Department of Sciences, Kebbi State Polytechnic Dakingari,
Nigeria

²Department of Physics, Kebbi State University of Science and
Technology Aliero, Nigeria

*Corresponding author's email address and phone number:

garbadsani@gmail.com

Abstract

The escalated and savage consumption of conventional sources of energy is leading to lamentable energy and environmental crises. The worldwide use of fossil fuels has led to the critical situation of global warming that is significantly affecting human health, the environment, and climate. Green synthesis of nanoparticles (NPs) is an approach to synthesizing nanoparticles using plants for research industrial applications. This approach is environment-friendly, cost-effective, biocompatible, and safe, which therefore received serious attention from researchers worldwide. Dye-sensitized solar cells (DSSCs) are proposed as low-cost alternatives to conventional

photovoltaics. These cells have been widely examined due to their low cost and high conversion efficiency. In this article, the green synthesis and characterization of ZnO nanocomposites using moringa and neem leaves and their photocatalytic and dye-sensitive solar cell potency are intensively reviewed.

Keywords: Moringa, Neem, Photocatalytic Activity, Dye-Sensitized Solar Cell

189 GUARANTEED PURSUIT TIME OF A DIFFERENTIAL GAME WITH GENERALIZED INTEGRAL CONSTRAINTS

Ahmad Yahaya Haruna

Department of General Studies, Federal Polytechnic Kano, P.M. B., 3353, Kano, Nigeria.

Email address: ahmadyahayahaya@gmail.com;

Abstract

In this paper, we study a pursuit differential game with countably infinite pursuers and a single evader in the Euclidean space R^n . Players motion obeys certain linear first-order differential equations and control functions of both pursuers as well as evaders are subject to generalized integral constraints. We obtain satisfactory conditions for completion of pursuit and an explicit formula for the guaranteed pursuit time. Moreover, pursuers' strategy that ensures completion of pursuit at time $\square$ was constructed, and also an illustrative example was provided.

Keywords: Pursuit Differential Game, Control Functions, Guaranteed Pursuit Time.

190 TVET DEVELOPMENT IN RIVERS STATE, NIGERIA: EXPLORING THE EFFECTIVENESS OF EXISTING TRAINING FACILITIES FOR TEACHERS IN TECHNICAL COLLEGES

Isaac Nwojiewho Dokubo

Abstract

The study assessed the adequacy of training facilities for training of technical and vocational education teachers for technical colleges in Rivers State. Six objectives, six research questions, and six tested hypotheses guided the study. An analytical survey research design was adopted for the study. The population of the study was 109 respondents; this was also the sample size of the study since the population was within a manageable range. An 83-item 4-point rating scale assessment checklist was used for the study; mean and standard deviation were used to analyze the data collected, and a Z-test was used to test hypotheses at the 0.05 level of significance. The instrument was validated by two experts in the

Department of Vocational and Technology Education, Rivers State University. The instrument had a reliability coefficient of 0.70 derived using Pearson product moment correlation. Findings reveal that there is inadequacy of workshop spaces, studios, and tools and equipment for training of technical and vocational education teachers for technical colleges in Rivers State. Based on the findings, it was recommended that the Rivers State Government and the management of TVET teacher training institutions in the state should, as a matter of urgency, provide for a conducive learning environment and office working spaces for staff; re-training programs should be encouraged by the universities to enable the lecturers to acquire updated knowledge on new technologies and work processes; and the workshops would be properly equipped.

Keywords: TVET, Training Facilities, Teachers, Technical Colleges

191 ENHANCING CATTLE HERD MANAGEMENT THROUGH MACHINE LEARNING: PREDICTIVE MODELING FOR GROWTH PATTERN FORECASTING

Kenneth Tuyishime and Michael Adelani Adewusi

*School of Mathematics and Computing, Kampala International University, Uganda *Corresponding author's email address:*

kenneth.tuyishime@studmc.kiu.ac.ug

michael.adewusi@Kiu.ac.ug

Abstract

Cattle herds are vital to agriculture, providing meat, milk, and other byproducts. Accurate growth predictions are essential for optimizing herd health, productivity, and sustainable management. Traditional methods, like Uganda's National Livestock Census, rely on intermittent data collection, causing delays in identifying and addressing potential issues. This research aims to develop a machine learning (ML) model to forecast cattle herd growth patterns, addressing the limitations of sporadic data collection. The study explores the use of ML algorithms, such as Random Forest and Gradient Boosting, to analyze factors like weather, soil, crop management, and historical herd records. By integrating diverse datasets, the model aims to identify subtle growth patterns and early indicators of deviations that traditional methods may overlook. The findings are expected to benefit farmers, policymakers, and researchers by providing actionable insights for better decision-making and resource allocation. Ultimately, ML-based predictive models can improve cattle herd management, contributing to enhanced livestock health, productivity, and agricultural sustainability.

Keywords: Machine Learning, Cattle Herd Management, Predictive Modeling, Agricultural Sustainability

192 THE CHALLENGES OF ROBOTICS TECHNOLOGY IMPLEMENTATION IN 21ST CENTURY HOTEL BUSINESS ENVIRONMENT IN NIGERIA

***¹Mansur Aliyu and ²Ebenezer Beyioku**

¹*Sokoto State University, Sokoto, Nigeria*

²*National Open University of Nigeria, Abuja, Nigeria*

**Corresponding author's email address:*

mansur.aliyu@ssu.edu.ng; donseun@yahoo.com

Abstract

This study evaluates the challenges of robotic technology implementation in the 21st-century business environment. The objective is to identify and analyze the challenges in implementing robotic technology in hospitality services, understand robotics as it applies to hospitality services, and determine the acceptability of robotic technology in hospitality services. Data was gathered through the use of a questionnaire distributed to the respondents. One hundred and twenty (120) questionnaires, while one hundred and forty-eight (148). The study used a descriptive research design, and a primary data questionnaire was used. The finding shows that robotic technology enhances efficiency in a business environment and that robotic technology used in hotels helps access guest information systems. The ever-increasing stream of marketing strategies encourages the use of robotic technology. The study concludes that advanced technology initially developed to aid in the efficiency of operation and reduction in labor, food, and other operational costs have ultimately aided these organizations in the attainment of the ultimate goal, of customer satisfaction and repeat business. The study recommended that hotels should strategically and innovatively find ways of enhancing and promoting performance and efficiency through the application of advanced technology integrated with proper management systems. In particular, the use of ICT in marketing, service delivery, and empowering employees.

Keywords: Robotics, Technology, Implementation, Business Environment

193 SECURING SOFTWARE-DEFINED NETWORKS (SDN) AGAINST CYBER ATTACKS: A COMPREHENSIVE SURVEY OF MACHINE LEARNING AND DEEP LEARNING-BASED INTRUSION DETECTION SYSTEMS (IDS)

***Shamsu Sani, Hadiza Aliyu Kangiwa, Sulaiman Umar S. Noman, Anas Shehu, Saifullahi Ahmad Tijjani, Muzammil Mansur, Abdulazeez Abdullahi Bena, Salihu Alhassan**

**Corresponding author's email address:*

shamsu.sanibk19@gmail.com

Abstract

The Internet faces numerous attacks, threatening data integrity. Intrusion Detection Systems (IDS) were developed to safeguard information by detecting and alerting administrators to potential threats, enhancing network security. IDS serves as a predictive tool, identifying normal and malicious network traffic. Software-Defined Networking (SDN) marks a significant shift by decoupling the control plane from the data plane, allowing for flexible, programmable networks where applications interact with devices via a centralized controller. This controller manages network traffic and sets rules for switches within the data plane. Unfortunately, cyber adversaries often target the SDN controller, the system's central intelligence, exploiting its control over southbound APIs (device communication) and northbound APIs (business logic). This paper reviews literature from 2015-2023 on integrating machine learning (ML) and deep learning (DL) techniques into IDS for securing SDN. It categorizes IDS and ML-DL techniques by learning types and explores IDS implementations in SDN. The paper also discusses benchmark datasets for constructing IDS solutions within the SDN framework. Furthermore, it highlights the need for government infrastructure investments to address these security issues, recommending that central banks prioritize policies to stabilize national currency rates.

Keywords: IDS, SDN, Machine Learning, Deep Learning, Cybersecurity, Network Security

194 SOLAR MODIFICATION RADIATION GOVERNANCE AND INCLUSION FOR AFRICA

Ibrahim Sani Madugu, Abubakar Abdulkarim, Munir Ahmad, Mustapha Kundili, Yinusa Adediran, B. J. Olufeagba

School of Mathematics and Computing, Kampala International University, Uganda

**Corresponding author's email address: maduguemir@kiu.ac.ug*

Abstract

The persistent increase in global temperature despite numerous investments in achieving the 1.5 to 2°C goal of the Paris Agreement has mandated alternative solutions. Solar geoengineering (SG), also known as solar radiation modification (SRM), amongst other solutions, gained tremendous attention recently. However, due to numerous controversies surrounding its potential (merits and demerits), many have shown reluctance in its implementation. In addition, it remains an unknown concept, especially outside its researchers. The governance of SRM requires all and sundry as it poses

a threat or a solution to the whole planet and probably the entire universe. The inclusion of all stakeholders: youth—whose feature may be at stake; farmers—where precipitation may be affected; policymakers—who may be given the directions and resources in its management, and so on. This paper reviewed the concept of SRM from the scientists' views (for and against), proffered ways of engagements of the critical stakeholders, and suggested governance pathways to the entire African continent.

Keywords: IDS, SDN, Machine Learning, Cybersecurity

195 THE INFLUENCE OF TiO₂ NANOPARTICLES ON THE TENSILE STRENGTH AND DIELECTRIC PROPERTIES OF EPOXY BASED NANOPOLYMER

***Aminu Yakubu Umar and Ogbodo, Mekafan Osebi**

Department of Physics, Federal College of Education Katsina.

**Corresponding author's email address:*

aminuyakubu3648@gmail.com makosebi@yahoo.com

Abstract

The influence of nanoparticles on the tensile strength and dielectric properties of epoxy-based nanopolymers necessitates this study. Studies have shown that the addition of nanoparticles to polymers can influence the mechanical and dielectric properties of materials. This work presents the influence of nanoparticles on the tensile strength and dielectric properties of neat and nanoparticle-filled epoxy TiO₂ (titanium oxide) nanocomposite. The samples were prepared in the laboratory by direct mixing, and the mechanical and dielectric analysis of the sample were performed. The presence of a 2 wt% TiO₂ nanoparticle in the epoxy matrix resulted in optimum mechanical and dielectric behavior. While the presence of the nanoparticle has significant influence on the reduction of the mechanical properties of the composite. It does not have much influence on the reduction of the dielectric properties of the composite. The variation of temperature of the sample revealed that 2 wt% nanoparticle-filled polymer displayed higher relaxation activation energy. The research suggests that the filling of the epoxy polymer with 2 wt% TiO₂ nanoparticles can modify the mechanical strength and dielectric relaxation behavior of the polymer composites.

Keywords: Epoxy Resin, Titanium Oxide, Nano Composites

196 THE ROLE OF ARTIFICIAL INTELLIGENCE IN SMART CITY DEVELOPMENT

Ihama E.I.

Email address: ieyotor@gmail.com

Abstract

The growth in city residents and industrial revolution has led to climatic, scientific, and commercial variations that have harshly affected the significance of existence in metropolises. In response to these variations, the notion of smart metropolises was established; it denotes a different use of information and communication technology to reduce its drastic effects on the metropolises and their inhabitants. Artificial intelligence is among the tools that have been implemented to improve smart metropolises. Studies have shown that artificial intelligence (AI) has been improved promptly, and it has contributed substantially to facilitating widespread smart city methods in several areas. Hence, it's dynamic towards deciding recent study development to understand the part it contributes to artificial intelligence in smart cities and intelligent information collection and distribution. Furthermore, there is a necessity to evaluate the correlation among artificial intelligence and smart metropolises methodically. To distinguish this association, this paper focuses on the part of artificial intelligence, its uses, and difficulty related to ideas and tools known as artificial intelligence in smart towns. Thus, this study paper endeavors to offer awareness of artificial intelligence and its part in smart metropolises for intelligent information collection and distribution.

Key Words: Urbanization, Smart City, AI, Risks And Legal Framework, Privacy And Remedies, DPR

197 AN EVALUATION OF AQUIFER VULNERABILITY AND MANAGEMENT USING GEOPHYSICAL PROTECTIVE INDEX (GPI) APPROACH IN THE IMO RIVER BASIN, SOUTHEASTERN NIGERIA

***¹Terhemba Emberga, ²Alexander Opara, ²Samuel Onyekuru and ¹Alexander Omenikolo**

¹Department of Physics/Electronics, Federal Polytechnic Nekede, Owerri

²Department of Geology, Federal University of Technology, PMB 1526 Owerri

**Corresponding author's email address and phone number: terhemba4sure@yahoo.com*

Abstract

The Schlumberger electrode configuration was used to collect 569 vertical electrical soundings (VES) data. The purpose of this research is to use the Geophysical

Protective Index (GPI) technique to assess the hydro-geological units' susceptibility. Manually and using computer software packages, the measured resistivity data were analyzed to determine the resistivity, depth, and thickness of each layer within the maximum current electrode spacing. The protective layers' hydraulic conductivity (K) and hydraulic resistance (C) have values that range, on average, from 13.19 m/day to 1.74 m/day, according to estimates based on the fundamental parameters. Aquifer resistivity and conductivity had respective mean values of 1963.2 m and 0.00186 sm^{-1} . According to the study's GPI, it will take contaminants in the study area between a few months and around 25 years to permeate the groundwater system. Delineating aquifer protected zones and potential locations will facilitate the investigation and management of groundwater resources.

Keywords: GPI, VES, Hydraulic Conductivity, Aquifer Resistivity.

198 CLIMATE CHANGE IMPACTS ON AERONAUTICS AND AIR VEHICLE DEVELOPMENT: CHALLENGES AND OPPORTUNITIES

***Kareem Aduagba Ganiyu and Emmanuel Ngbede Aba**

**Corresponding author's email address: kareem.aduagba@naseni.gov.ng*

Abstract

Climate change presents a pressing challenge to the aeronautics industry, affecting various aspects of air vehicle development and operations. This abstract explores the multifaceted effects of climate change on aeronautics industries, encompassing aerodynamics, propulsion systems, materials, and operational strategies. The escalating frequency and intensity of extreme weather events necessitate robust adaptation measures. This would improve the safety and efficiency of air transportation systems. Furthermore, the aviation sector's momentous input to greenhouse gas emissions underscores the urgent need for sustainable aviation solutions. This would include alternative fuels, electric propulsion, and aerodynamic optimization. This abstract highlights the complex interplay between climate change and aeronautics, emphasizing the urgent need for innovative technologies and collaborative endeavors to alleviate environmental impacts while advancing the future of air travel.

Keywords: climate change, aeronautics, sustainable aviation solutions, greenhouse

199 PETROLEUM RESERVOIR SIMULATION BY AN ADAPTIVE NON-OSCILLATORY FINITE VOLUME METHOD

¹Terhemen Aboiyar, ²Benjamin Vershima Iyorter

¹Department of Mathematics and Statistics School of Mathematics and Computing (SOMAC)

Kampala International University, Kampala, Uganda,

*²Department of Mathematics and Computer Science University of Mkar, Mkar, Nigeria *Corresponding author's email address and phone number: aboiyar@kin.ac.ug, manversh@umm.edu.ng*

Abstract

This study proposes an adaptive Arbitrary High Order Derivative (ADER) method for the numerical simulation of two-phase flow in porous media, specifically for the Buckley-Leverett model in petroleum reservoir simulation. The method utilizes a non-oscillatory reconstruction of the generalized multiquadric radial basis function. A stencil selection algorithm, based on a metric function, is developed and used for implementing the multiquadric reconstruction. Additionally, a mesh adaptivity algorithm is integrated into the ADER scheme to enhance accuracy in regions of discontinuity using an error indicator. The method is applied to the five-spot problem, a standard model for evaluating reservoir simulation techniques. Numerical results demonstrate that the proposed ADER method performs well in handling discontinuities and improving solution accuracy, making it a robust choice for petroleum reservoir modeling.

Keywords: ADER Method, Two-Phase Flow, Porous Media, Buckley-Leverett Model.

200 LEVERAGING ARIMAX MODEL FOR ACCURATE FORECASTING OF UGANDA'S COMPOSITE PRICE INDEX: A ROBUST APPROACH TO ECONOMIC PREDICTION

¹Lekia Nkpordee, ²Abdirashid Mohamed Hussein, and ³Chukwuemeka Odi Agwu

^{1,2}Department of Mathematics and Statistics, Kampala International University, Kansanga, Kampala, Uganda,

³Department of Computer Science, Kampala International University, Kansanga, Kampala, Uganda

Abstract

This study addresses the need for accurate forecasting of the Consumer Price Index (CPI) and energy prices, which exhibit complex and non-linear behaviors. The primary objective is to model and forecast the CPI based on energy prices, particularly diesel, petrol, kerosene, electricity, and liquefied gas, using advanced time series techniques. The ARIMAX (3,1,2) model was employed to analyze the data, which was tested for

stationarity and non-linearity using the BDS, normality, and stationarity tests. The findings reveal significant non-linearity across all energy prices, with moderate linear dependence, suggesting the need for non-linear modeling techniques. The ARIMAX (3,1,2) model provided the best fit, achieving the lowest AIC value and demonstrating superior forecasting performance. Diesel's first differencing and kerosene's second differencing significantly influenced CPI forecasts. The study concludes that the ARIMAX (3,1,2) model offers a balanced and accurate approach for forecasting CPI, and it recommends further exploration of non-linear models to improve prediction precision. Key results show that CPI predictions improved when integrating energy price variability, highlighting the robustness of the ARIMAX model for economic forecasting.

Keywords: Arimax Model, Economic Prediction, Predictive Modeling, Inflation Trends, Composite Price Index

201 TWO DECADES OF RESEARCH AT THE UNIVERSITY OF LAGOS (2004-2023): A SCIENTOMETRIC ANALYSIS OF PRODUCTIVITY, COLLABORATION, AND IMPACT

¹Muneer Ahmad, ²Samuel Ibor Ubi, ³Undie Felicia Nkatv, ⁴Joseph Ungwugwaye Igligli, ⁵Gorretty Maria Juma and ⁶Janet Mugena

¹Chief University Librarian, The Iddi Basajjabalaba Memorial Library, Kampala International University, Kansanga, Uganda.

*Corresponding author's email address:

muneerbangroo@gmail.com; ahmad.muneer@kiu.ac.ug.

²Deputy Librarian, The Iddi Basajjabalaba Memorial Library, Kampala International University, Kansanga, Uganda. ubi.ibor@kiu.ac.ug.

³Ag. Deputy Librarian, The Iddi Basajjabalaba Memorial Library, Kampala International University, Box 20000, Ggaba Road, Kansanga, Uganda. nkaufelicia@gmail.com; felicia.undie@kiu.ac.ug, ⁴Lecturer, Department of Library and Information Science, University of Calabar, Calabar, Nigeria. josephigligli@yahoo.com,

⁵Deputy University Librarian, The Iddi Basajjabalaba Memorial Library, Kampala International University, Kansanga, Uganda. goretty.juma@kiu.ac.ug,

⁶Library Assistant, The Iddi Basajjabalaba Memorial Library, Kampala International University, Kansanga, Uganda. janet.mugena@kiu.ac.ug

Abstract

This paper presents a scient metric analysis of research output from the University of Lagos, focusing on the two decades spanning 2004 to 2023. Using bibliometric data retrieved from the Web of Science, we examine trends in publication volume, collaboration patterns, citation impact, and the most prolific authors, departments,

and research domains at the university. The study reveals a consistent increase in research productivity, with the highest publication output recorded in 2023. Health Sciences, Engineering, and Social Sciences are identified as dominant fields, reflecting the university's interdisciplinary research strengths. Collaborative efforts, both locally and internationally, show a positive correlation with higher citation impact, with the United States and the United Kingdom being the leading international collaborators. Notably, open-access publications account for a significant portion of the university's research output, enhancing visibility and citation rates. The findings offer valuable insights into the university's research performance over the past two decades, providing a foundation for strategic planning and policy formulation to foster research excellence and global impact.

Keywords: Research Productivity, University Of Lagos, Citation Impact, Collaboration Patterns, Research Trends, Higher Education Research.

202 COMPARATIVE ANALYSIS OF CSR AND SUSTAINABILITY INITIATIVES OF SELECTED PRIVATE UNIVERSITIES IN NIGERIA AND UGANDA. CASE OF KAMPALA INTERNATIONAL UNIVERSITY UGANDA AND AL QALAM UNIVERSITY NIGERIA

Aminu Muhammed Bakori

School of Law Kampala International University, Uganda
aminu.muhammed@kiu.ac.ug

Abstract

This research conducts a comparative evaluation of the regulatory framework of corporate social responsibility (CSR) in Nigeria and Uganda, focusing on the sustainability and CSR programs of Al-Qalam University (Nigeria) and Kampala International University (KIU, Uganda). The study aims to analyze how private institutions engage with CSR and sustainability in different African contexts, using comparative and socio-legal research methods. It highlights the scope, impact, and challenges of CSR initiatives in both universities, contributing to the broader discourse on higher education's role in sustainable development. Findings show that while Nigeria has a pending CSR bill in its National Assembly since 2012, Uganda lacks similar legislative efforts. However, private initiatives in Uganda, like those by KIU, appear more effective and community-oriented than those at Al-Qalam University. The study recommends the passage of the pending CSR bill in Nigeria and urges the Ugandan parliament to introduce similar legislation. This would enable business registries in both countries to request evidence of compliance with CSR regulations from registered institutions, including universities, as part of their annual returns.

Keywords: Corporate Social Responsibility, Csr,

203 PREDICTING THE GROWTH RATE OF UGANDA ECONOMY USING FOREIGN TRADE FLOW

*Osayomore Ikpotokin and Ibrahim Mumin Mohamud

Department of Mathematics and Statistics, Kampala International University, Uganda

*Corresponding author's email address: ikpotokin@kin.ac.ug

osayomore@kin.ac.ug, mohamud.ibrahim@studmc.kin.ac.ug

Abstract

This study investigates the impact of foreign trade export flows on Uganda's economic growth from 1990 to 2023, focusing on key commodities like cereals (wheat, rice, and maize) and beverages (coffee, cocoa, and tea). Stationarity analysis revealed that cocoa, rice, coffee, and economic growth were stationary at the level, while wheat, tea, and maize required transformation, while multicollinearity was absent. Regression models indicate that export flows account for 71.1% of economic growth, though relationships were positive but not statistically significant. The ARDL model for grains, beverages, and economic growth was the best model for prediction, showing a moderate positive impact.

Keywords: Predicting, Growth Rate, Economy, And Foreign Trade.

204 BUDGETING AND FUNDING NIGERIAN UNIVERSITY LIBRARY SERVICES, PROGRAMMES AND PROJECTS IN AN ELECTRONIC AGE

*¹Katamba A. Saka and ²Abubakar Ladan

¹*Federal University of Technology, Minna, Nigeria,*

²*Al-Qalam University, Katsina, Nigeria*

*Corresponding author's email address:

s.katamba@futminna.edu.ng and alaka005@yahoo.com

Abstract

This paper examines budgeting and funding for Nigerian university libraries, focusing on service delivery and program execution in the electronic age. University library services encompass technical, specialized bibliographic, reader, and electronic library services, while programs include user orientation, reading promotion, and staff training. Library projects involve automation, digitization, and renovations. The study aims to achieve four specific objectives: to analyze budgeting systems, identify funding sources, examine funding challenges, and provide strategies for gaining university management's confidence in funding library services. Utilizing documentary research, the study evaluates

various budgeting methods, including incremental, line-item, zero-base, and government subvention, as well as grants and internally generated revenue (IGR). Findings indicate that Nigerian university libraries primarily use incremental and line-item budgeting, with funding sourced from government, the Tertiary Education Trust Fund (TETFund), and IGR through library levies during student registration. Challenges faced include inadequate and irregular funding, budget cuts, and a 25% tax on IGR from federal parastatals. The paper recommends enhanced justification for funding requests, efficient service delivery, meticulous budget preparation, record-keeping, lobbying, and advocacy to secure budgetary allocations and foster management support for university libraries in Nigeria.

Keywords: Budgeting, Electronic Age, Funding, Service, Nigerian University Libraries.

205 DYNAMIC INTERDEPENDENCIES IN UGANDA'S COMPOSITE PRICE INDEX: A PREDICTIVE ANALYSIS USING ENHANCED VARX MODELING TECHNIQUES

*¹Abdirashid Mohamed Hussein, ²Lekia Nkpordee and ³Turyahikayo Willy

^{1,2}*Department of Mathematics and Statistics, Kampala International University, Kansanga, Kampala, Uganda,*

³*Department of Applied Economics, Makerere University Business School Kampala, Uganda*

*Corresponding author's email address: husein.abdirashid@studmc.kin.ac.ug, lekia.nkpordee@kin.ac.ug, wturyahikayo@mubs.ac.ug

Abstract

This study investigates the dynamic interdependencies within Uganda's Composite Price Index (CPI) using vector autoregression with exogenous variables (VARX) models. The research aims to improve the accuracy of CPI forecasting by incorporating both internal dynamics and external factors, such as energy prices, that significantly affect Uganda's economic stability. Data collected from the Uganda Bureau of Statistics from July 2017 to January 2024 was analyzed to examine the relationships between CPI and energy sources, including diesel, petrol, electricity, kerosene, and liquefied gas. The results reveal that petrol prices have a substantial impact on CPI fluctuations, while other energy sources show more limited effects. The VARX (10) model was identified as the most effective for forecasting, with projections indicating relatively stable CPI trends and minor fluctuations over the next two years. The study recommends targeted policy interventions to manage fuel price volatility and inflation, particularly in anticipation of short-term inflationary pressures around mid-2025. These findings offer valuable insights for policymakers

to enhance inflation management and foster sustained economic growth in Uganda.

Keywords: Dynamic Interdependencies, Composite Price Index (CPI), VARX Modeling Techniques, Energy Energy Forecasting.

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THE IMPACT OF CYBERSECURITY PRACTICES ON FINANCIAL PERFORMANCE IN BANKING SYSTEMS

^{*1}V.S. Manjula, ²Muriithi Irene Wanjiru, ³Nageeb. A.H. Haroun & ⁴Chebet Shilla

¹Professor, Department of Mathematics and Computing, Kampala International University, Kampala, Uganda, East Africa,

^{*}Corresponding authors' email addresses: manjusunil.vs@gmail.com, Orcid ID: (0000-0003-0308-3289)

²School of Mathematics and Computing, Kampala International University, Kampala, Uganda, muriithiren1@gmail.com

³Asso. Professor, Department of School of Mathematics, Statistics and Computing, Kampala International University, Kansanga, Kampala, Uganda, East Africa, nageebharoun@gmail.com

⁴ Asst. Lecturer, Master of Bu Kampala International University, Kampala, Uganda, chebetshillao11@gmail.com

Abstract

The digital landscape has transformed the banking industry, presenting both opportunities and challenges. While technology facilitates efficient financial services, it also exposes banks to a heightened risk of cyberattacks. This paper delves into the intricate relationship between cybersecurity measures and financial performance in banking systems. It explores the positive impact of robust security protocols on mitigating financial losses and fostering trust while acknowledging the cost considerations associated with such measures. The paper further examines strategies for achieving an optimal balance between effective cybersecurity and financial sustainability. In exploring this relationship, we first acknowledge the fundamental shift brought about by technology in the banking sector. The emergence of digital banking platforms, mobile applications, and online transactions has revolutionized how customers interact with financial institutions. However, alongside these advancements come significant cybersecurity challenges. The interconnected nature of digital systems and the vast amounts of sensitive data stored within banking networks make them attractive targets for cybercriminals. Nevertheless, it is essential to recognize the cost considerations associated with implementing and maintaining effective cybersecurity measures. While investing in cybersecurity is imperative for protecting critical assets and maintaining regulatory compliance, it can also entail significant financial resources. Therefore, achieving an optimal balance between cybersecurity and

financial sustainability is paramount. This paper examines various strategies for striking this balance, considering factors such as risk appetite, resource allocation, and the evolving threat landscape.

Keywords: Cybersecurity Practices, Financial Performance, Banking Systems

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NUMERICAL INVESTIGATION OF UNSTEADY MAGNETO HYDRODYNAMIC NANOFLUID FLOW OVER A POROUS LINEAR STRETCHING PLATE WITH SLIP BOUNDARY CONDITION: A REVISED THEORETICAL MODEL

^{*1}Nageeb. A.H. Haroun and ²V. S. Manjula,

¹Department of School of Mathematics, Statistics and Computing, Kampala International University, Kansanga, Kampala, Uganda, East Africa, email address:

Nageebharoun@gmail.com

²Department of Mathematics and Computing, Kampala International University, Kansanga, Kampala, Uganda, East Africa, Manjusunil.Vs@gmail.com, Manjula.Subramanian@Kin.Ac.Ug Orcid Id: (0000-0003-0308-3289)

Abstract

The effects of heat radiation, heat transfer, and mass on the hydrodynamically unstable magnetic flux (MHD) of a 3D Casson nanomaterial. Flow is subject to partial load and slip conditions. The conventional model incorporating the effects of Brownian motion and thermophoresis has been revised so that the volume fraction of nanofluidic particles at the boundary is not effectively controlled. In this regard, the problem is more realistic. The dimensionless governing equations were solved using the spectroscopic quasi-linear method. This work aims to fill the gap in the current literature by demonstrating the effects of porosity, magnetic field, and expansion ratio parameters on the flow of a Casson Nanofluid model on a linear porous expanded sheet with nanoparticles incorporated in the concentration boundary condition. It is observed that the increase in flow instability tends to reduce the momentum, heat, and size of the nanoparticles.

Keywords: 3D-Casson Nanofluid; MHD; Porous Linear Stretching Sheet

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POLICY DEVELOPMENT AND IMPLEMENTATION FOR E-RECORDS MANAGEMENT IN NIGERIAN POLYTECHNICS

^{*1}Habib Shehu and ²Ramatu Bello Muazu

¹Management Information Systems, Kampala International University, Uganda

*Corresponding author's email address: habib.shehu@studmc.kiu.ac.ng
<http://orcid-0009-4464-7074>

²Department of Library & Information Science, College of Administrative & Social Sciences, Kaduna Polytechnic, Nigeria

Abstract

Developing and implementing policies is a critical stage in addressing the numerous challenges with electronic records (e-records) management in Nigerian polytechnics. Previous studies have revealed that poor management skills, lack of necessary competencies, and inadequate implementation of e-records management strategies are major contributors to the poor state of e-records in these institutions. This research focused on Federal Polytechnic Nasarawa and Nasarawa State Polytechnic, Lafia, both located in Nasarawa State. The study utilized a focused-group interview approach, adopting a narrative research design within qualitative research methodologies to gather data from 25 participants. Narrative analysis was employed to interpret the data. The findings revealed the absence of a policy document or structure for managing electronic records. The study concluded that compliance and enforcement of e-records management would be more effective if a national policy were established, serving as a roadmap for all government agencies. Additionally, the formation of a task force comprising information technology personnel, e-records managers, and experts in e-records management is recommended. Finally, mechanisms should be put in place to ensure the systematic implementation of this policy across all polytechnics.

Keywords: Policy Formulation, Policy Implementation, Records Management, Electronic

209 REGULATING NETWORK VOLTAGES OF UNBALANCED LV GRIDS USING A DISTRIBUTED REACTIVE POWER CONTROL SYSTEM

Uzoma Sunday Okogbule

Department of Electrical/Electronic Engineering
Rivers State University, Port Harcourt

Abstract

The demand for renewable energy rather than fossil fuels is on the increase. This paper suggests a novel control technique for voltage regulation in unbalanced LV distribution networks featuring substantial decentralized renewable energy generation shares. The proposed technique relies heavily on the reactive power of distributed renewable energy sources. Additionally, its distinguishing characteristic is the application of a distributed control architecture that gives priority to DRES responses to keep network voltages within safe parameters and to reduce network losses. In this model, decisions are made locally by each DRES

using information from the sensitivity theory, local measurements, and measurements acquired by the other network DRESs. By running time-domain and time-series simulations, it was concluded that the proposed model outperforms decentralized solutions and exhibits near-optimal behaviour compared to optimization-based methods but with less computation complexity and monitoring requirements.

Keywords: network, voltage, LV, reactive power control

210 TREE INDUCTION ALGORITHM TO PREDICT CRITICAL COURSES AFFECTING STUDENTS' PERFORMANCE IN TERTIARY INSTITUTIONS

Abdulfatah Samaila Mashasha

Email address: abdulfatab.mashasha@ksitm.edu.ng

Abstract

The amount of data collected and stored in educational institutions grew too big, and education data analysis could not be performed manually anymore. The tree induction algorithm is a powerful tool for predicting student performance based on critical courses. This algorithm uses a decision tree to identify the factors that have the greatest impact on student performance and to predict a likelihood of success or failure based on those factors. By examining the performance of students in different courses and identifying the ones that are most closely associated with success, the algorithms can help educators design effective interventions and support structures for struggling students. The abstract Provide an overview of the algorithm and its potential applications in education, highlighting its ability to accurately predict student performance and to provide insights into the factors that contribute to success or failure.

Keywords: Induction Algorithm, Tertiary Institution, Student's Performance and Predict.

211 SOLAR RADIATION AND RENEWABLE ENERGY SYSTEM

Amusan Opeyemi Saheed

Electrical Engineering Department Federal Polytechnic Kano -
Kano Nigeria

Email address: opeyemiamusan86@gmail.com

Abstract

The study of solar radiation and renewable energy systems is aimed at identifying solar radiation as an alternative energy source. The increasing demand for energy as a result of rising population growth, urban development, and industrialization has called for a global concern. This paper provides that there is a need for the development of a fossil-fuel energy-free society in order

to ensure energy conservation as well as sustainable energy production for present and future use. Solar radiation is an unlimited source of renewable energy. It is clean, sustainable, versatile, and environmentally friendly. This paper recommends the development of solar power for urban and industrial use.

Keywords: Renewable, Sustainable, clean, versatile, Environment friendly

213 BLOCK CHAIN-ENHANCED DATA SHARING FRAMEWORK FOR SAVINGS AND CREDIT COOPERATIVE SOCIETIES (SACCOS): ENSURING SECURITY, TRANSPARENCY, PRIVACY, AND USER CONTROL

***Nakajubi Shamsusi and Michael Adelani Adewusi**
School of Mathematics and Computing, Kampala International University

**Corresponding author's email address: babib.shehu@studmc.keiu.ac.ug*

*<http://orcid-0009-4464-7074sbamusi.nakajubi@studmc.keiu.ac.ug>, michael.adewusi@Kin.ac.ug
[Orcid.org/0000-0002-8003-6761](http://orcid.org/0000-0002-8003-6761)*

Abstract

This study presents a novel framework for data sharing within Savings and Credit Cooperative Societies (SACCOS) utilizing blockchain technology to ensure security, transparency, privacy, and user control. Given the rapid advancements in technological innovation, there is an increasing need for robust data-sharing practices that balance user privacy and transparency, enhance user experience, and drive business profitability. SACCOS, community-based financial institutions, rely on effective data management to improve service personalization, promote savings, generate employment, and contribute to community development. However, traditional data-sharing models face significant challenges related to security, transparency, privacy, and user control. To address these issues, we developed a platform that integrates distributed ledgers and smart contracts, leveraging the unique strengths of MultiChain and Ethereum blockchains. This approach ensures secure data storage, transparent and efficient data sharing, and robust access control mechanisms through user-controlled privacy policies encoded in smart contracts. Our platform overcomes the limitations of centralized user models, which are prone to security vulnerabilities and lack accountability for the data shared. The findings of this study demonstrate that the proposed blockchain-enhanced framework significantly improves data sharing within SACCOS. By providing a secure, transparent, and efficient mechanism for intra-data sharing, this framework not only enhances the financial well-being of SACCO members but also

fosters trust and accountability within the cooperative ecosystem.

Keywords: Block-chain, SACCOS, Transparency, Framework and Security.

214 DESIGN AND IMPLEMENTATION OF PV SYSTEM FOR HEALTH FACILITIES IN RURAL AREAS OF UGANDA

¹Afam Uzorka, ¹David Kibirige, ²Mustafa Mundu Muhamad, ²Ukagwu Kelechi John

¹Department of Physical Sciences, School of Natural and Applied Sciences, Kampala International University, Uganda.

²Department of Electrical, Telecommunication and Computer Engineering, School of Engineering and Applied Sciences, Kampala International University, Uganda.

Abstract

Access to reliable electricity remains a significant challenge for health facilities in rural areas of Uganda, impacting the delivery of essential healthcare services. The design and implementation of a photovoltaic (PV) system tailored to address the energy needs of health facilities in these underserved regions can help close this gap. This work presents the hardware and field test of the design and implementation of a renewable energy system for rural health facilities in Uganda using pulse width modulation (PWM) and off-grid three-phase inverters. The system is intended to generate power from a photovoltaic array and deliver the maximum amount of energy to the battery backup system, even during fluctuating atmospheric conditions. The system is designed to be efficient, portable, easy to use, and low-cost, with an LCD screen, external charging unit, and inverter drive for single- to three-phase loads. The experimental average efficiency of the designed system is 96.03%. The implementation of PV systems in rural health facilities holds immense potential to enhance healthcare delivery, improve patient outcomes, and contribute to overall community development in Uganda.

Keywords: Renewable Energy, Pulse width modulation, Off-grid, Inverters, Photovoltaic array, Battery backup system, Rural health facilities.

215 DESIGN AND IMPLEMENTATION OF A HYBRID ENERGY SYSTEM IN THE OIL FIELDS IN NIGERIA FOR OPTIMUM PERFORMANCE

Paul Erungworo Okayim

University of Calabar, Nigeria

Email address: paulokayim@unical.edu.ng

Abstract

The pollution caused by gas flaring is harmful to the health of humans, flora, and fauna located around flaring sites in Nigeria. Nigeria, a country that is rated among the top crude oil exporting countries in the world, suffers from economic losses due to gas flaring as natural gas, an energy source, is wasted in flares. Furthermore, the intermittent power supply in Nigeria has become a bane to national development, which has also had adverse effects in the oil and gas sector, with many oil and gas companies struggling to meet their production targets. This research paper presents a novel framework to design hybrid energy systems (HES) that utilize gas flare wastes along with the locally available renewable energy sources to generate electricity. A novel dispatch strategy to suit the requirements of the oil and gas fields has been used for real-time simulations and optimization of the HES. As a test case, three different hybrid energy configurations, modeled for three gas flaring sites, Ebocha (active flaring site), Bomu (non-active site), and Igwuruta-ali (control site) in Rivers State, Nigeria, were analyzed and compared on the basis of economic and environmental factors. The best suitable configuration comprised 2000 kW solar photovoltaic (PV) panel sets, one 200 kW gas microturbine, two 30 kW gas microturbines, and grid connection. The proposed system economically outperformed the existing power system in the area by 31.32% in terms of the net present cost. Moreover, it could save 700 tons of carbon dioxide emissions annually, and it has a renewable fraction of 92.1% in the total energy generation. Owing to these merits, the presented technique would be a promising option for the generation of electricity from flare gas waste and to mitigate pollution.

Keywords: Hybrid Energy, Oil Field, Microturbine and Grid.

216 THE IMPACT OF ICT IN POLITICS AND ITS EFFECT ON VOTING BEHAVIOR OF CITIZEN IN NIGERIA, KABO METROPOLIS AS A CASE STUDY

Abdullahi Tahir

*Department of Computer Science, Federal Polytechnic Kabo,
Kano State, Nigeria*

Email address and phone number: abdullahitahir3@gmail.com,

Abstract

This study assessed the impact of ICT in politics and its effect on the voting behavior of citizens in Kabo metropolis, Nigeria. The objectives include assessment of the network problem during the voting process, manipulation of results that affects voters, and effects of transmission of results on voters. The study was carried out at the INEC headquarters in Kabo along with Kano State University in Kabo. Related literature was

reviewed on Concepts of Information Communication Technology, Electronic Voting, Biometric Technology, Direct Data Capture Machines, E-Registration of Nigerian Voters, The role of ICT in the 2015 and 2019 Nigerian Presidential Elections, Free and Fair Election, Participation, Transparency, Easy Collation, The Role of ICT in Managing Elections in Nigeria Benefits of ICT to Electoral Management and Empirical Review. The study uses the descriptive research design method; the population of this study consists of 42 INEC staff in the headquarters Kabo (the entire population of the staff). The main instrument that was used for the collection of data is a structured questionnaire. The researcher employed frequency distribution tables in the analysis of the collected data. It was found that network problems hinder the transmission of results from the pulling unit to the IReV Portal, hinder the effective authentication of electorate, and delay the voting process. It was also found that manipulation of results leads to voters's apathy, electoral violence, and electorate corruption, which hinders a free and fair election. This study also recommended that the INEC, in collaboration with the government, should adequately install and administer ICT facilities in the electoral process to promote the effective and efficient transmission of results from the pulling unit to the IReV Portal, authentication of voters, and enhancement of the voting process.

Keywords: Election, IReV, Politics, ICT and Kabo.

217 MECHANICAL AUGMENTATION OF FINE NEEDLE ASPIRATION: ENHANCING SAMPLE YIELD THROUGH MECHANICAL AGITATION

***Youran Li, Neha Chellu, Moonhyung Lee, Ishir Sharma, Sangmita Singh, Derek Minn, Hassan Farah, Shreya Tiwari, Aditi Sriram, Teja Sathi, Kim Hwang Yeo, Youseph Yazdi, Emily Ambinder, Elizabeth Logsdon**

**Corresponding author's email address: ssing131@jhb.edu*

Abstract

While core needle biopsy (CNB) is the gold standard procedure for diagnosing breast cancer in developed countries, fine needle aspiration (FNA) is another breast biopsy procedure commonly used in low and middle-income countries (LMICs) due to its affordability, rapidness, and low invasiveness. Despite its benefits, however, FNA has a high false negative rate of 26.5% in Uganda. This is mainly a result of inadequate sample cellularity, where not enough cells are collected to enable a diagnosis that accurately reflects the lesion pathology. False-negative results can be detrimental to patients as they delay treatment initiation, necessitate repeat biopsies, and result in unmanaged disease progression. This study demonstrates the efficacy of using multimodal

mechanical needle agitation to increase sample cellularity for FNA samples. Specifically, needle agitation was induced via three different motion modalities: linear, vibrational, and rotational motion. Each motion was used to facilitate the performance of FNA on a goat liver model, followed by a comparison of aspirate cellularity to those yielded by standard manual FNA. Results from the study demonstrate that all three automated motions yielded samples with higher cellularity compared to manual FNA. These preliminary results demonstrate that incorporating automated motion(s) into the breast FNA procedure has the potential to increase sample adequacy and hence enable more accurate diagnoses to be made.

Keywords: Mechanical Augmentation, Fine Needle, Motion and Needle Agitation.

218 OPTIMIZATION OF BIOMASS WASTE-TO-ENERGY FROM CATTLE DUNG FOR ELECTRIFICATION IN MADDU UGANDA

¹Afam Uzorka, ¹David Makumbi, ²Ukagwu Kelechi John, ²Mustafa Mundu Muhamad

¹Department of Physical Sciences, School of Natural and Applied Sciences, Kampala International University, Uganda.

²Department of Electrical, Telecommunication and Computer Engineering, School of Engineering and Applied Sciences, Kampala International University, Uganda.

Abstract

In many rural regions, particularly in Sub-Saharan Africa, access to reliable electricity remains a critical challenge. Maddu, a community in Uganda, exemplifies this struggle, with limited access to the power grid hindering socio-economic development. To address this issue, this study focuses on the optimization of biomass waste-to-energy, specifically utilizing cattle dung, as a sustainable solution for electrification in Maddu. The Tabu Search metaheuristic was adapted to solve this problem. The number of cattle for commercial viability of the biomass waste to energy technology and the maximum revenue from these systems was determined. The number of cattle was found to be 60 dairy cows, considered co-digestion of manure and food waste, use of by-products, and an increase in the electricity tariff. When digesting manure only, the number of cattle was 130 dairy cows. The maximized revenue was obtained with the use of a 150-hp engine generator set, a 1350 m³ digester, a lagoon of 40 days storage capacity, and a boiler rated at 133 kW. The findings of this study provide valuable insights into leveraging local biomass resources for decentralized electrification, offering a pathway towards enhancing energy access and fostering sustainable development in Maddu and similar rural

communities.

Keywords: Biomass waste-to-energy, Cattle dung, Electrification, Maddu Uganda, Anaerobic digestion, Energy conversion, Sustainable development.

219 THE EFFECT OF ELECTROMAGNETIC FIELDS (EMF) FROM ELECTRONIC GADGETS ON YOUNG ADULTS IN EAST AFRICA, A CASE STUDY OF UGANDA

Awafung Emmanuel Adie

Biomedical Engineering Department, KIU Western Campus
Uganda

Email address: awafungadie@gmail.com

Abstract

The widespread use of electronic devices, such as smartphones, tablets, and laptops, among young adults in East Africa and other parts of the world has raised concerns about the potential health impacts of exposure to electromagnetic fields (EMF). This study investigates the effects of EMF from electronic gadgets on the physical and mental well-being of young adults aged 18–30 in Uganda. The methodology involved a cross-sectional survey of 500 participants, who were assessed for physiological indicators of EMF exposure, including changes in hormone levels, heart rate variability, and neurological functioning. Participants also completed questionnaires on their patterns of electronic device use and self-reported physical and mental health outcomes. The results indicated that prolonged and excessive use of electronic gadgets is associated with significant alterations in hormonal regulation, autonomic nervous system function, and cognitive performance among the study population. These physiological changes were found to correlate with increased reports of headaches, sleep disturbances, anxiety, and depression. The study concluded that public health interventions are needed to raise awareness and promote healthier usage patterns of electronic devices among young adults in East Africa. The study recommends the development of guidelines for safe use of electronic gadgets, as well as the integration of EMF education into school curricula and community health programs. Further longitudinal research is necessary to fully understand the long-term implications of EMF exposure from electronic devices on the health and well-being of young adults in the region.

Keywords: Electromagnetic field, Exposure, Effects on health, East Africa.

220 ADOPTING HOSPITAL WIRELESS CALL DEVICE AND ITS BENEFITS (A CASE STUDY OF KSITM CLINIC)

Abdulfatah S. Mashasha

*Department of Computer Software Engineering, Katsina State
Institute of Technology and Management*

Email address: abdulfatah.mashasha@ksitm.edu.ng

Abstract

The hospital wireless caller device is a tool used in healthcare facilities, such as hospitals or nursing homes, to quickly summon medical assistance in case of an emergency. It is also used as a special communication device between the patients and the doctor or nurse within the area as a means of speeding the doctor or nurse's time response in providing immediate care to the patients. The device typically consists of a button or switch that can be easily pressed by patients or staff in need of an assistant. The use of hospital wireless-based caller devices makes communication easier and neater between the two parties. The Bluetooth module MH-10 is connected to the microcontroller ATmega8 as the sender and receiver. The information is processed using a microcontroller ATmega8 that produces characters on the LCD, turns on the LED, and activates the buzzer to call the doctor or nurse.

Keywords: Hospital, Nurse Caller, Arduino microcontroller, Bluetooth Module.

221 PERFORMANCE EVALUATION OF PID-BASED CONTROLLER STRUCTURE FOR DC MOTOR USING THREE DIFFERENT TUNING TECHNIQUES

Ogunsola Peter Ayodimeji

*Department of Electrical And Electronic Engineering Faculty
of Technology Federal Polytechnic Kano, Kano State*

Email address: adewalepeter25@gmail.com

Abstract

The control of the speed of a DC motor is important and has been studied in the last century. This project objective is to control the speed of a DC motor using MATLAB. This research work presents a comparison of the time response of a DC motor model using a proportional integral derivative controller and three tuning techniques of PID. The goal is to determine which control strategy delivers better performance of the DC motor based on the step response characteristics. The performance of the tuning techniques was verified through simulation using the MATLAB software package to know the performance characteristics in the step response characteristics such as rise time, settling

time, percentage overshoot, and disturbance rejection in the speed of the DC motor. The speed performance of the DC motor was evaluated with the Ziegler-Nichols tuning technique, the genetic algorithm tuning technique, and the fuzzy logic tuning technique. The PID controller was tuned in MATLAB to control the speed of the DC motor using the three tuning techniques, and the speed of the DC motor was taken based on the performance characteristics and recommendations made. The response showed maximum change in the controller speed in relation to the reference input speed by Z-N PID is minimal (percentage overshoot is 2.8%). The DC system gave a quick response (rise time of 1.2 seconds) with the genetic algorithm. Z-N PID takes little time to get stable with a settling time of 2.7 seconds. Also, a fast disturbance rejection of 0.7 seconds was obtained with Ziegler Nichols. The developed DC motor model, using MATLAB, showed the differing effects of the three tuning techniques of the PID controller on the speed of a DC system.

Keywords: PID-based Controller, DC, Techniques, Speed.

122 THE INFLUENCE OF NANOPARTICLES ON THE TENSILE STRENGTH AND DIELECTRIC PROPERTIES OF EPOXY BASED NANOPOLYMER

A. Yakubu, Ogbodo M. O

*Department of Physics, Federal College of Education, Katsina.
Nigeria*

Abstract

The influence of nanoparticle on the tensile strength and dielectric properties on Epoxy based Nano polymer necessitates the study. The addition of nanoparticle to polymers can influence the mechanical and dielectric properties. This work presents the influence of nanoparticle on the tensile strength and dielectric properties of neat and nanoparticle-filled Epoxy TiO₂ nanocomposite. The samples were prepared in the laboratory by direct mixing. The mechanical and dielectric analysis of the sample were performed. The presence of 2 wt% TiO₂ nanoparticle in the epoxy matrix resulted in optimum mechanical and dielectric behavior. While the presence of the nanoparticle has significant influence on the reduction of the mechanical properties of the composite. It does not have much influence on the reduction of the dielectric properties of the composite. The variation of temperature of the sample revealed that 2 wt% nanoparticles filled polymer displayed higher relaxation activation energy. The research suggests that the filling of the epoxy polymer with 2 wt% TiO₂ nanoparticle can modify the mechanical strength and dielectric relaxation behavior of the polymer composites.

Keywords: Epoxy Resin, Titanium Oxide, Nanocomposites

223 PROSPECT OF HAUSA LANGUAGE AS A 21ST CENTURY GIANT FOR COMMUNICATION AND GENERAL INFORMATION DISSEMINATION

Hamza Shehu Usman

*Hausa Department, Federal College Of Education Katsina,
Katsina State – Nigeria.*

Email address and phone number: hairuzma@gmail.com.

Abstract

As a unique medium of communication, language stimulates individuals, society, and organizations success. It fuels all aspects of human endeavors, especially in directing and controlling daily activities. Language remains the flat form for communicating ideas, feelings, thoughts, vision, and exploring our environment for developmental purposes. Hausa, as a major Nigerian and an emerging global language in the 21st century, plays a prominent role in local and international communication and information dissemination. This paper examines Hausa language strength in terms of speaker population and geographical spread. The study analysis identifies some of the language roles in communication, especially in the areas of education, political activities, public enlightenment, religious matters, and general information dissemination through Hausa oral songs, mass media, the internet, etc. The study is guided by the application of the Gusau (2003, 2011, and 2014) approach to the technique of study of Hausa oral songs and secondary sources. The study revealed that the use of Hausa language in information and communication adds value to current and scheduled public engagement. Also, the public is motivated and easily mobilized to desired goals. Similarly, the study findings established that Hausa language in information and communication is witnessing more patronage and manipulation by Hausa oral song artists, politicians, local and international media, NGOs, and religious bodies in the 21st century than ever before.

Keywords: Hausa Language, 21st Century, Giant, Communication, Information, Dissemination.

224 SCIENTOMETRIC ANALYSIS OF RESEARCH OUTPUT AT KAMPALA INTERNATIONAL UNIVERSITY (2006–2024): TRENDS, COLLABORATIONS, AND IMPACT

^{*1}Muneer Ahmad ¹Gorrey Maria Juma, ¹Undie Felicia Nkatv, ²Joseph Ungwugwaye Igligli
¹Samuel ¹Ibor Ubi ¹Janet Mugena and ¹Edhaya

David

¹Iddi Basajjabalaba Memorial Library, Kampala International University, Box 20000, Ggaba Road, Kansanga, Uganda.

²Department of Library and Information Science, University of Calabar, Calabar, Nigeria.

**Corresponding author's email address: muneerbangroo@gmail.com; ahmad.muneer@kiu.ac.ug*

Abstract

This study provides a comprehensive scientometric analysis of Kampala International University's (KIU) research output from 2006 to 2024, examining publication trends, citation impact, and institutional collaborations. Utilizing bibliometric data retrieved from the Web of Science, we analyze 500 publications authored by KIU scholars, documenting annual output, preferred journals, and research productivity by department by using Histcite, RStudio, and MS Excel software programs. The results reveal a significant increase in publications, particularly in the Faculty of Biomedical Sciences and the School of Natural and Applied Sciences. Key collaborators include prominent institutions like Makerere University and Michael Okpara University of Agriculture. Additionally, Nigeria, India, and the USA are identified as leading contributors based on corresponding authorship. The findings indicate a rapid growth in KIU's academic output, driven by increased collaborations and research in biomedical and natural sciences, positioning KIU as a significant player in the African research landscape.

Keywords: Kampala International University, Scientometrics, Research output, Institutional collaboration, Bibliometrics, Citation analysis, Research productivity, Academic growth.

225 THE SHORT-TERM AND LONG-TERM RELATIONSHIP BETWEEN AGRICULTURAL PRODUCTION AND INCOME PER CAPITA GROWTH RATE IN UGANDA FROM 1988 TO 2022

¹Sakariye Abdilahi Abdi, ¹Anumolu Goparaju and
²Willy Turyahikayo

*School of Mathematics and Computing, Kampala International University, Uganda. *Corresponding author's email address:*

*abdi.sakariye@studmc.kiu.ac.ug goparaju.anumolu@kiu.ac.ug
College of Economics and Management, Kampala International University. Email: willy.turyahikayo@kiu.ac.ug*

Abstract

This study investigates the short-term and long-term relationships between agricultural production and income per capita growth in Uganda from 1988 to 2022. Utilizing the autoregressive distributed lag (ARDL) model, the research reconciles the long-run and short-run dynamics of agricultural output on income per capita growth. The findings reveal a decline in agricultural output over time, contrasted by a steady increase in Uganda's per capita

income. The results indicate a moderate yet statistically significant relationship between agricultural production and income per capita growth in both the short and long term. These findings corroborate previous research, underscoring the critical role of agriculture in economic development, particularly in low-income nations. The study emphasizes the necessity for policies that enhance agricultural productivity and support the agricultural sector while ensuring sustained income growth and poverty alleviation. This research provides valuable insights into the enduring impact of agricultural productivity on income per capita growth in Uganda, offering guidance for policymakers and stakeholders aiming to foster economic growth in agricultural economies.

Keywords: Agricultural production, ARDL model, Agricultural productivity, Poverty alleviation

226 SOLAR AGRI-PHOTOVOLTAIC SYSTEMS AND CLIMATE-RESILIENT FARMING FOR SUSTAINABLE ENERGY AND FOOD PRODUCTION

^{*1}Mundu Mustafa Muhamad, ¹Abdullahi Bala Kunya ²Sempewo Jotham Ivan and ³Mahoro Gloria

¹Department of Electrical, Telecommunication and Computer Engineering, Kampala International University, P. O. Box 20000, Kampala, Uganda, mundu.mustafa@kiu.ac.ug, ORCID; <https://orcid.org/0000-0003-1345-9999>.

²Department of Civil and Environmental Engineering, College of Engineering, Design Art and Technology, Makerere University, P. O. Box 7062, Kampala, Uganda, sempewo@cedat.mak.ac.ug, Orcid;

<https://orcid.org/0000-0002-9897-211X>. ORCID 0000-0001-5558-358X

³Department of Biological and Environmental Science, Kampala International University, P. O. Box 20000, Kampala, Uganda, gloria.mahoro@kiu.ac.ug, <https://orcid.org/0000-0002-2341-3719>.

*Corresponding author's email address: mundu.mustafa@kiu.ac.ug

Abstract

The growing threats of climate change, including extreme weather and resource depletion, have increased the demand for innovative, climate-resilient farming practices. Agri-photovoltaic (Agri-PV) systems, which combine solar energy production with agriculture, offer a promising solution to address both food and energy security. These systems not only improve crop yields, conserve water, and generate renewable energy but also contribute to key Sustainable Development Goals (SDGs), including food security (SDG 2), clean energy (SDG 7), and climate action (SDG 13). This paper explores the role of Agri-PV systems in promoting climate-resilient farming by assessing their effectiveness in sustainable

food and energy production. It also examines how these systems mitigate climate risks, enhance resource efficiency, and support global sustainability efforts. The study synthesizes existing literature on Agri-PV systems and analyzes case studies from countries leading in their adoption. Additionally, it includes a comparative analysis of crop yields, energy generation, and water use in Agri-PV systems versus traditional farming methods. The research further evaluates the economic viability and policy frameworks supporting Agri-PV implementation. Findings reveal that Agri-PV systems significantly improve land-use efficiency, enhance crop resilience by regulating microclimates, and reduce water evaporation while providing shade to heat-sensitive crops. Economic analysis shows these systems offer a viable return on investment, especially in regions with favorable policies, though challenges such as high initial costs, technical issues, and farmer resistance persist. Overall, Agri-PV systems present a dual solution for sustainable food and energy production, advancing these systems can contribute to sustainable future for both agriculture and energy.

Keywords: Solar Agriphotovoltaic, sustainable agriculture, renewable energy, climate adaptation, food security, energy production, Sustainable Development Goals.

227 SORPTION OF ALIZARIN RED FROM AQUEOUS SOLUTION USING CHITOSAN-CHARCOAL COMPOSITE

¹Ikeke K., ²Adetuyi, M. and ³Olubodun, S. O.

¹Department of Science Laboratory Technology, Edo State Polytechnic, Usen. Edo State, Nigeria ²Department of Chemistry, Federal University of Technology, Akure, Ondo State, Nigeria.

³Department of Chemistry, Edo State University Uzair, Nigeria.

Department Medical Biochemistry University of Benin Nigeria Corresponding author's email address: kekeke@edopoly.edu.ng

Abstract

It is estimated that over 10% of the dye used in textile processing does not bind to the fibres and is therefore released to the environment. Some of these compounds cause serious threat because of their carcinogenic potential or cytotoxicity. The study investigated the removal efficiency of Alizarin red from aqueous solution using chitosan- charcoal composite as adsorbent. Deproteinization was carried out by placing 200g of powdered snail shell in 4% w/v NaOH for 2 hours. The sample was then placed in 1% HCl for 24 hours to remove CaCO₃. Deacetylation was done by boiling in 50% NaOH for 2 hours. 10% Oxalic acid was used to dissolve the chitosan before mixing with charcoal at 550°C to form the composite. The composite

was characterized by Fourier Transform Infra-Red and Scanning Electron Microscopy measurements. The efficiency of adsorption was evaluated by varying pH of the solution, contact time, initial concentration and adsorbent dose. Maximum removal of Alizarin removal was achieved at pH 4 for composite while pH 2 and 5 was obtained for chitosan and charcoal respectively. The results showed that adsorption of Alizarin red followed the pseudo-second order rate equation and fit the Langmuir and Freundlich isotherms. The data showed that composite was best suited for crystal violet removal. Thermodynamic parameters such as enthalpy change (ΔH°), free energy change (ΔG°) and entropy change (ΔS°) indicate that adsorption process of Alizarin red was endothermic, spontaneous and feasible.

Keywords: Alizarin red (ARS), chitosan-charcoal composite, extraction process, sorption.

228 DESIGNING A FRAMEWORK FOR INTEGRATING ARTIFICIAL INTELLIGENCE INTO ELECTRICAL AND ELECTRONICS TECHNOLOGY EDUCATION CURRICULUM IN NIGERIAN COLLEGES OF EDUCATION

Abdullahi, Umar & Ezugu, L. C.

Corresponding author's email address:
umarsanda197@gmail.com

Abstract

Rapid advancements in artificial intelligence (AI) technologies offer a significant chance to change course offerings, especially in Electrical and Electronics Technology Education (EETE) in Nigerian colleges. This paper emphasizes the critical need for a well-organized framework to incorporate AI into the EETE curriculum in order to give students the abilities and information they need to succeed in a technological environment that is becoming more and more AI-driven. The paper addresses infrastructure development, educator training, curriculum redesign, and ethical considerations as the main points of emphasis for the proposed framework. Students will obtain practical experience and improve their problem-solving skills by integrating AI concepts, tools, and applications into the curriculum. The framework also emphasizes how crucial it is for educators to pursue ongoing professional development in order to stay up to date on the latest developments in artificial intelligence. It also promotes ethical considerations in order to keep curricula current and aligned with technology advancements. With this integrated approach, graduates with a strong grasp of AI should be able to spearhead innovation in Nigeria's electrical and electronics technology education sectors. The study ends with strategic recommendations for how legislators, heads of institutions of higher learning, and business partners can work together to create an

atmosphere that will enable the successful integration of AI into the EETE curriculum, improving the caliber and applicability of technical education in Nigeria. **Keywords:** Artificial Intelligence Integration; Electrical and Electronics Technology Education; Curriculum Redesign; Educator Training; Ethical Considerations.

229 ADOPTING HOSPITAL WIRELESS CALL DEVICE AND IT'S BENEFITS

Abdulfatah Samaila Mashsha

Email address: abdulfatah.mashsha@ksitm.edu.ng

Abstract

The Hospital wireless caller device is a tool used in healthcare facilities, such as hospital or nursing homes, to quickly summon medical assistance in case of an emergency. It also used as a special communication device between the patients and the doctor or nurse within the area as a means of speeding the doctor or nurse's time response in providing immediate care to the patients. The device typically consists of a button or switch that can be easily pressed by patients or staff in need of assistant. The use of hospital wireless-based caller device makes communication easier and neater between the two parties. The Bluetooth module MH-10 is connected to the microcontroller ATmega8 as the sender and receiver. The information is processed using a microcontroller ATmega8 that produces characters on the LCD, turns on the LED, and activates the buzzer to call the doctor or nurse.

Keywords: Hospital, Nurse Caller, Arduino microcontroller, Bluetooth Module.

230 ADOPTION OF INFORMATION AND COMMUNICATION TECHNOLOGY FACILITIES AND ORGANIZATIONAL EFFECTIVENESS AND EFFICIENCY IN KAMPALA INTERNATIONAL UNIVERSITY

Tusiime Adella, Dusabimana Yvette, Elias Kassim

*School of Mathematics and Applied Computing
Kampala International University, Uganda*

Abstract

This study investigated the adoption of information and communication technology (ICT) facilities and organizational effectiveness and efficiency in Kampala international university (Main Campus). The study particularly sought to establish the correlation between ICT adoption and organizational effectiveness and efficiency. The study was based on the following objectives: i) to determine the adoption of information communication technology at Kampala international university, ii) to determine organizational effectiveness and efficiency at Kampala international university and

iii) to establish the relationship between adoption of information communication technology (ICT) and organizational effectiveness and efficiency at Kampala international university. The study employed descriptive correlational design; data was collected using researcher devised questionnaires. Pearson correlation (r) was used to establish the relationship between adoption of information communication technology (ICT) and organizational effectiveness and efficiency at Kampala international university. In regard to Sex, the study revealed that majority 53% of the respondents were male while the female were 47%. In regard to age groups, majority 67% of the respondents fell in the category of 20-39 years compared to other categories of 40-59 years and 60 and above age brackets, which gave percentages of 27% and 6% respectively. In regard to academics, the study showed that majority 65% of the respondents possessed a Bachelor's Degree, followed by diploma holders 14% and those having masters were 13%, only 8% had other qualifications. The findings in regard to work experience revealed that majority 69% of the respondents had worked with the University for 6-10 years, while 18% had a 1-5 years of experience and only 13% had been employed for over 10 years within the University. The study also finding showed an average mean of 3.07 for the types and ICT equipments used at the research area. In regard to ICT usage, the study finding revealed an average mean of 2.74, meaning it was satisfactory. In regard to ICT awareness, the finding showed an average mean of (2.26) and was interpreted as fair. The research showed a satisfactory level of organizational effectiveness with an average mean of 2.82. In regard to the level of organizational efficiency, the finding revealed a satisfactory level of efficiency with an average mean of (2.60). The study also established a weak positive correlation between adoption of ICT and the level of effectiveness and efficiency ($r=.388$). The regression analysis between the dependent variable was (adjusted $R^2=0.094$). The researcher concluded that employee training on ICT skills is a subject that has not been widely spread among the staff of higher institutions thus the study recommended that organizations should have obligation to offer continuous on-job training with ICT skills inclusive. This would help them to effectively deliver hence ensuring organizational effectiveness.

Keywords: Communication Technology, Facilities, Kampala, ICT.

231 ELECTRICITY GENERATION FROM SOLAR RADIATION BY MEANS OF HEAT ENGINE USING FOCUSING COLLECTORS

Amusan Opeyemi Saheed

Department Of Electrical Engineering Federal Polytechnic,

Kabo Kano Nigeria

Email address and phone number:

opeyemiamusan86@gmail.com

Abstract

This paper focused on the conversion of solar energy into electricity using Heat Engine. Energy used by people on a daily basis comes from fossil-fuel energy sources. There is an increasing demand for energy worldwide as a result of rising population growth. Future availability of fossil-fuel energy cannot be ascertained. Hence, the need for the development of a fossil-fuel energy-free society in order to conserve fossil-fuel energy and ensure sustainable energy production. This paper provides that solar radiation is an unlimited source of energy. The development of fossil-based energy has some environmental challenges. Solar energy is clean, versatile, and environmentally friendly. In this paper, electricity generation from solar radiation using a heat engine is considered. Although the use of photovoltaic devices for the conversion of solar energy into electricity has gained fairly high recognition in recent times. However, the use of photovoltaic devices to power industries requires a huge cost of installation and maintenance. Moreover, energy alternatives must show reasonable competitiveness in cost and efficiency. As a result, this paper focuses on the development of electricity generation from solar energy using heat engines. In this research, the use of focusing collectors is considered. Hence, electricity generated by this means can be distributed on a wide scale on the electric grid system for urban and industrial use.

Keywords: Cost, Efficiency, Clean, Versatile, Environmentally Friendly.

HEALTH SCIENCES

232 A REVIEW OF PREDICTIVE APPROACHES FOR MODELING THE DISTRIBUTION OF MALARIA DISEASE INCIDENCES

Ssebadduka Jamir, Kamukama Ismai, Adeleke Raheem Ajiboye Michael Adewusi, Chukwuemeka Odi Agwu and Wasike Azizi

Department of Computer Science, School of Mathematics and Computing, Kampala International University, Uganda.

Abstract

Predicting the distribution of malaria disease incidences

is critical for effective public health interventions. Accurate predictions aid in prevention, control, and resource allocation, helping combat the spread of malaria. This review assesses existing literature on methodologies employed for predicting the distribution of malaria incidences, focusing on studies published between 2019 and 2024. The review examines various modeling approaches used, highlighting the types and quality of data, disease incidence rates, environmental factors, and predictive performance. It explores the strengths and weaknesses of these methods, shedding light on how predictive models are applied in malaria incidence distribution. Key findings reveal the effectiveness of different predictive approaches, showcasing their role in forecasting infectious disease trends. Additionally, the review offers insights into areas where improvements in predictive accuracy are needed for better disease incidence modeling. By analyzing the advancements in malaria distribution prediction methods, this review underscores the importance of refined models in guiding public health interventions aimed at reducing malaria prevalence.

Keywords: Prediction, Malaria Disease Distribution, Disease Incidence, Public Health

233 PROSPECT OF HAUSA LANGUAGE AS A 21ST CENTURY GIANT FOR COMMUNICATION AND GENERAL INFORMATION DISSEMINATION

Hamza Shehu Usman

*Hausa Department, Federal College Of Education Katsina,
Katsina State – Nigeria.*

Email address: bairuzma@gmail.com.

Abstract

As a unique medium of communication, language stimulates individuals, society, and organizations success. It fuels all aspects of human endeavors, especially in directing and controlling daily activities. Language remains the flat form for communicating ideas, feelings, thoughts, vision, and exploring our environment for developmental purposes. Hausa, as a major Nigerian and an emerging global language in the 21st century, plays a prominent role in local and international communication and information dissemination. This paper examines Hausa language strength in terms of speaker population and geographical spread. The study analysis identifies some of the language roles in communication, especially in the areas of education, political activities, public enlightenment, religious matters, and general information dissemination through Hausa oral songs, mass media, the internet, etc. The study is guided by the application of the Gusau (2003, 2011, and 2014) approach to the technique of study of Hausa oral songs and secondary sources. The study

revealed that the use of Hausa language in information and communication adds value to current and scheduled public engagement. Also, the public is motivated and easily mobilized to desired goals. Similarly, the study findings established that Hausa language in information and communication is witnessing more patronage and manipulation by Hausa oral song artists, politicians, local and international media, NGOs, and religious bodies in the 21st century than ever before.

Keywords: Hausa Language, 21st Century, Giant, Communication, Information, Dissemination.

234 SCIENTOMETRIC ANALYSIS OF RESEARCH OUTPUT AT KAMPALA INTERNATIONAL UNIVERSITY (2006–2024): TRENDS, COLLABORATIONS, AND IMPACT

***¹Muneer Ahmad ¹Gorrey Maria Juma, ¹Undie Felicia Nkatv, ²Joseph Ungwugwaye Igligli ¹Samuel ¹Ibor Ubi ¹Janet Mugena and ¹Edhaya David**

¹Iddi Basajjabalaba Memorial Library, Kampala International University, Box 20000, Ggaba Road, Kansanga, Uganda.

²Department of Library and Information Science, University of Calabar, Calabar, Nigeria.

**Corresponding author's email address:*

muneerbangroo@gmail.com; ahmad.muneer@kiu.ac.ug

Abstract

This study provides a comprehensive scientometric analysis of Kampala International University's (KIU) research output from 2006 to 2024, examining publication trends, citation impact, and institutional collaborations. Utilizing bibliometric data retrieved from the Web of Science, we analyze 500 publications authored by KIU scholars, documenting annual output, preferred journals, and research productivity by department by using Histcite, RStudio, and MS Excel software programs. The results reveal a significant increase in publications, particularly in the Faculty of Biomedical Sciences and the School of Natural and Applied Sciences. Key collaborators include prominent institutions like Makerere University and Michael Okpara University of Agriculture. Additionally, Nigeria, India, and the USA are identified as leading contributors based on corresponding authorship. The findings indicate a rapid growth in KIU's academic output, driven by increased collaborations and research in biomedical and natural sciences, positioning KIU as a significant player in the African research landscape.

Keywords: Kampala International University, Scientometrics, Research output, Institutional collaboration, Bibliometrics, Citation analysis, Research productivity, Academic growth.

235 PUBLIC HEALTH EDUCATION AND TREATMENT: AN OPTIMAL CONTROL STRATEGY FOR MANAGING PROSTATE CANCER

***Buganzi Lukia and Abdullahi Mohammed Baba**

Department of Mathematics/Statistics, School of Mathematics and Computing

Kampala International University, Kampala, Uganda

**Corresponding author email: lukia.buganzi@kiu.ac.ug*

Abstract

This paper examines prostate cancer dynamics using fractional differential equations, particularly the Atangana-Baleanu derivative, to enhance modelling precision and control strategies. The findings indicate that this approach significantly improves the understanding and management of prostate cancer compared to traditional methods, enabling better modelling of complex disease dynamics and memory effects. Through simulations, the study explores the impact of varying fractional order parameters, revealing the model's sensitivity to different settings and implications for disease progression. It identifies optimal control strategies, particularly the combination of public health education and treatment, as the most effective means to control disease spread and enhance recovery outcomes. A sensitivity analysis highlights key parameters influencing disease transmission, providing insights for targeted interventions. Utilizing Pontryagin's Maximum Principle for optimal control underscores the importance of effective resource management in public health. Overall, the research concludes that fractional differential equations, especially those using the Atangana-Baleanu derivative, offer a superior framework for modelling prostate cancer dynamics, advocating for the integration of educational programs with treatment strategies to improve disease management and inform future public health initiatives.

Keywords: Public Health Education, Treatment, Optimal Control Strategy, Management, Prostate Cancer, Atangana-Baleanu derivative.

236 MATHEMATICAL APPROACHES TO EPIDEMIOLOGY OF SOIL-TRANSMITTED HELMINTHS IN UGANDA AND ITS OPTIMAL CONTROL

***Ssonko Paul, Rebecca Nalule Muhumuza and Abdullahi Mohammed Baba**

Department of Mathematics/Statistics, School of Mathematics and Computing, Kampala International University, Kampala, Uganda

**Corresponding author email and phone number:*

paul.ssonko@studmc.kiu.ac.ug

Abstract

Soil-transmitted helminths (STH) pose a significant public health challenge in endemic regions, particularly in sub-Saharan Africa. This study develops an optimal control model to analyze and mitigate STH dynamics in selected endemic districts of Uganda, focusing on key parasites such as *Ascaris lumbricoides*, *Trichuris trichiura*, and Hookworm species. Utilizing a compartmental approach, the model categorizes the population into susceptible, infected, recovered, and environmental classes, incorporating epidemiological data, environmental factors, and socio-economic variables. The dynamics are influenced by factors such as birth rates, natural death, treatment rates, and interactions with infectious materials. Control strategies include mass drug administration (MDA), health education, and sanitation improvements, aimed at reducing transmission and infection prevalence. Sensitivity analysis identifies critical parameters, and an optimal control framework evaluates intervention effectiveness, seeking to minimize costs associated with treatment and productivity loss while maximizing health outcomes. Numerical simulations demonstrate that a combined approach of MDA and health education significantly reduces infection prevalence, highlighting the importance of integrated strategies. The findings provide a quantitative basis for public health policymakers to design targeted interventions and emphasize the need for context-specific policy recommendations. Future research directions include exploring the long-term sustainability of control measures and enhancing community engagement to improve intervention efficacy.

Keywords: Mathematical Approaches, Epidemiology, Soil-Transmitted Helminths, Optimal Control, Sensitivity analysis

237 MODELLING CORRUPTION DYNAMICS IN THE POLICE AND JUDICIARY: A FRACTIONAL ORDER DIFFERENTIAL EQUATION APPROACH WITH OPTIMAL CONTROL SOLUTIONS

***Seno Hannington and Abdullahi Mohammed Baba**

Department of Mathematics/Statistics, School of Mathematics and Computing, Kampala International University, Kampala, Uganda

**Corresponding author email and phone number:*

hannington.seno@kiu.ac.ug

Abstract

This paper explores the modelling of corruption dynamics within police and judiciary systems using fractional order differential equations, enhanced by optimal control strategies. By employing advanced mathematical frameworks, the research captures the intricate interactions among various influencing factors,

revealing that fractional order models provide a nuanced representation of the nonlinear characteristics of corruption. The findings underscore the necessity of implementing optimal control strategies to effectively reduce corruption levels, emphasizing interventions informed by empirical data and tailored to specific environments. Corruption, described as a pervasive issue akin to cancer, affects all demographics and has long plagued African nations without exception. The study aims to gain insights into the spread and control of corruption through the development and analysis of mathematical models, which accurately reflect real-world phenomena by capturing the memory and hereditary properties of corruption dynamics. By incorporating optimal control strategies, the research identifies effective measures for mitigation and employs analytical and numerical techniques to assess the stability and sensitivity of the models, ultimately providing valuable recommendations for policy and intervention strategies. This comprehensive approach seeks to enhance understanding and inform more effective measures to combat corruption, a challenge that affects governance and societal integrity globally.

Keywords: Modelling, Corruption Dynamics, Police, Judiciary, Fractional Order Differential Equation, Optimal Control Solutions.

238 MODELLING THE DYNAMICS WITH OPTIMAL CONTROL FOR THE TRANSMISSION OF MARBURG VIRUS DISEASE

Ssevume Paul and Abdullahi Mohammed Baba

Department of Mathematics/Statistics, School of Mathematics and Computing Kampala International University, Kampala, Uganda.

Abstract

This study presents a comprehensive modeling framework to analyze and manage Marburg Virus Disease (MVD) dynamics using the Nonstandard Finite Difference (NSFD) scheme. We investigate three primary intervention strategies: public health education, travel restrictions, and quarantine and isolation measures. The NSFD approach provides a precise representation of transmission dynamics, accounting for non-linear interactions and varying population behaviors during outbreaks. Our findings reveal that the most effective strategy for controlling MVD outbreaks is the synergistic application of public health education and stringent quarantine and isolation protocols. This integrated approach enhances outbreak prediction accuracy and identifies key intervention points that significantly reduce virus transmission. By simulating various scenarios, we demonstrate how public health education empowers communities to adopt preventive

measures, while quarantine and isolation effectively contain confirmed cases. These insights are particularly valuable for public health authorities in high-risk regions, such as Africa, where MVD presents significant health challenges. Our research underscores the need for tailored, context-specific strategies that consider local behaviors and socio-economic factors, facilitating effective resource allocation and timely responses. In conclusion, this study enhances the understanding of MVD transmission dynamics and offers practical recommendations for public health interventions. By leveraging advanced modeling techniques, we aim to improve preparedness for future outbreaks, ultimately leading to better health outcomes and reduced mortality rates.

Keywords: Modelling, Dynamics, Optimal Control, Transmission, Marburg Virus, Disease

239 OPTIMAL CONTROL AND DETERMINISTIC MATHEMATICAL MODEL FOR SCHISTOSOMIASIS TRANSMISSION DYNAMICS

***Omito Robert and Abdullahi, Mohammed Baba**

Department of Mathematics/Statistics, School of Mathematics and Computing, Kampala International University, Kampala

**Corresponding author's email address: menyp2012@gmail.com*

Abstract

This study focuses on Pakwach District, Northern Uganda, where schistosomiasis is a substantial public health challenge, particularly affecting communities along Lake Albert. The general objective of this research is to develop a deterministic mathematical model to elucidate the transmission dynamics of schistosomiasis, emphasizing the role of heterogeneous intermediate hosts in this region. Specific objectives include investigating the impact of heterogeneous intermediate hosts, characterizing transmission dynamics within Pakwach District, and assessing the effectiveness of control interventions. A deterministic model employing nonlinear ordinary differential equations was developed, incorporating human, animal, and snail populations. The model's analysis involved computing the basic reproduction number (R_0), stability analyses of equilibria, sensitivity analyses, and numerical simulations to evaluate control strategies such as mass drug administration, snail control, and public health education. Key findings suggest that controlling the contaminated environment, where infected snails propagate, is critical to curbing schistosomiasis transmission. Public health education emerged as a particularly effective strategy, complementing interventions targeting snail populations and mass drug administration. Limitations include the model's reliance on parameter estimates from existing literature and the need for further validation

with empirical data. Recommendations emphasize prioritizing environmental management and exploring vaccine development to enhance control efforts.

Keywords: Optimal Control. Deterministic. Mathematical Model, Schistosomiasis Transmission, Dynamics

240 OPTIMAL MALARIA CONTROL STRATEGIES: A ONE HEALTH MATHEMATICAL MODELLING STUDY OF HUMAN, MOSQUITO, AND AQUATIC ENVIRONMENTAL INTERACTIONS IN UGANDA

***Mbowa Joseph and Abdullahi Mohammed Baba**
Department of Mathematics/Statistics, School of Mathematics and Computing
Kampala International University, Kampala, Uganda

**Corresponding author's email address: joseph.mbowa.22714@studmc.kiu.ac.ug,*

Abstract

This study presents a comprehensive mathematical modelling approach to explore optimal malaria control strategies by examining the intricate interactions among human populations, mosquito vectors, and aquatic environments in Uganda, utilizing a One Health framework that integrates ecological, biological, and social dimensions. The mathematical model incorporates critical factors such as human behaviour, mosquito life cycles, and environmental influences, providing insights into various control strategies, including insecticide-treated nets (ITNs), indoor residual spraying (IRS), and environmental management practices aimed at disrupting mosquito breeding sites. Through sensitivity analyses, the research identifies the most effective combinations of interventions and highlights the importance of community engagement and behaviour change in enhancing strategy effectiveness. Additionally, the model assesses the potential impacts of climate variability and environmental changes on malaria transmission, employing optimal control theory to determine the most efficient allocation of resources across interventions, thereby maximizing health outcomes while minimizing costs. Results indicate that a multifaceted approach—combining vector control measures with community health education and environmental management—significantly reduces malaria transmission. Ultimately, this research emphasizes the need for interdisciplinary collaboration in developing effective, context-specific, and sustainable malaria control strategies, aiming to inform policymakers and public health officials in Uganda and similar contexts as part of global efforts to combat malaria and improve health outcomes.

Keywords: Optimal Malaria Control, Strategies, One

Health initiative, Mathematical Modelling, Aquatic Environmental Interactions.

241 THE SHORT-TERM AND LONG-TERM RELATIONSHIP BETWEEN AGRICULTURAL PRODUCTION AND INCOME PER CAPITA GROWTH RATE IN UGANDA FROM 1988 TO 2022

¹Sakariye Abdilahi Abdi, ¹Anumolu Goparaju and ²Willy Turyahikayo

*School of Mathematics and Computing, Kampala International University, Uganda. *Corresponding author's email address: abdi.sakariye@studmc.kiu.ac.ug goparaju.anumolu@kiu.ac.ug College of Economics and Management, Kampala International University. Email: willy.turyahikayo@kiu.ac.ug*

Abstract

This study investigates the short-term and long-term relationships between agricultural production and income per capita growth in Uganda from 1988 to 2022. Utilizing the autoregressive distributed lag (ARDL) model, the research reconciles the long-run and short-run dynamics of agricultural output on income per capita growth. The findings reveal a decline in agricultural output over time, contrasted by a steady increase in Uganda's per capita income. The results indicate a moderate yet statistically significant relationship between agricultural production and income per capita growth in both the short and long term. These findings corroborate previous research, underscoring the critical role of agriculture in economic development, particularly in low-income nations. The study emphasizes the necessity for policies that enhance agricultural productivity and support the agricultural sector while ensuring sustained income growth and poverty alleviation. This research provides valuable insights into the enduring impact of agricultural productivity on income per capita growth in Uganda, offering guidance for policymakers and stakeholders aiming to foster economic growth in agricultural economies.

Keywords: Agricultural production, ARDL model, Agricultural productivity, Poverty alleviation

242 A REVIEW ON MORINGA AND NEEM LEAVES POTENCY ON PHOTOCATALYTIC ACTIVITY AND DYE SENSITIZED SOLAR CELL

¹Garba D. Sani, Abubakar Yakubu, ²Suleiman Sahabi, ³Aminu M. Bello

Email address: garbadsani@gmail.com

Abstract

The escalated and savage consumption of conventional sources of energy is leading to lamentable energy and environmental crises. The worldwide use of fossil fuels

has led to the critical situation of global warming that is significantly affecting human health, the environment, and climate. Green synthesis of nanoparticles (NPs) is an approach to synthesizing nanoparticles using plants for research industrial applications. This approach is environment-friendly, cost-effective, biocompatible, and safe, which therefore received serious attention from researchers worldwide. Dye-sensitized solar cells (DSSCs) are proposed as low-cost alternatives to conventional photovoltaics. These cells have been widely examined due to their low cost and high conversion efficiency. In this article, the green synthesis and characterization of ZnO nanocomposites using moringa and neem leaves and their photocatalytic and dye-sensitive solar cell potency are intensively reviewed.

Keywords: Moringa, Neem, Photocatalytic Activity, Dye-Sensitized Solar Cell, Green Synthesis

243 POTENCY OF CHLOROFORM FLOWER EXTRACT OF *Azadirachta indica* (NEEM) AGAINST CLINICAL ISOLATES ASSOCIATED WITH EYE INFECTION

^{*1}Abubakar Abdullahi, ²Muhammad Salihu Ibrahim, ³Rukayya Ahmed Habib and ⁴Fatima Muhammad Wada.

¹Department of Science Laboratory Technology, Federal Polytechnic Kabo, Kano State, Nigeria

²Department of Pharmaceutical Technology Federal Polytechnic Kabo, Kano State, Nigeria.

³Department of Life Sciences, Kano State Polytechnic, Nigeria

⁴Department of Science Laboratory Technology, Kano State Polytechnic, Nigeria

*Corresponding author's email address: abujigirya@gmail.com.

Abstract

This study investigates the phytochemical composition and antibacterial effects of chloroform flower extract (CFE) from *Azadirachta indica* against clinical isolates linked to eye infections: *Staphylococcus aureus*, *Klebsiella species*, and *Pseudomonas aeruginosa*. The extract was characterized as dark brown, pungent, and dry. Phytochemical analysis revealed the presence of reducing sugars, tannins, steroids, flavonoids, saponins, phalabactanins, and alkaloids, while resins and anthraquinones were absent. Antibacterial testing demonstrated that CFE exhibited the strongest activity against *Pseudomonas aeruginosa* (16 mm inhibition zone), followed by *Klebsiella species* (15 mm) and *Staphylococcus aureus* (13 mm) at a concentration of 5000 µg/mL. The minimum inhibitory concentration (MIC) was 156.26 µg/mL for both *Staphylococcus aureus* and *Klebsiella species*, and 312.5 µg/mL for *Pseudomonas aeruginosa*. The minimum bactericidal concentration (MBC) was determined to be 625 µg/mL against *Klebsiella species* and *Pseudomonas aeruginosa*, and 312.5 µg/mL against *Staphylococcus aureus*. These findings suggest that

CFE of *A. indica* has significant antibacterial potential against eye infection pathogens.

Keywords: Antibacterial Activities, Azadirachta Indica, Phytochemical Screening, Chloroform, Eye Infection, MIC, MBC.

244 IMPACT OF MALARIA PREVENTION AND CONTROL MEASURES ON MALARIA PARASITEMIA AMONG PREGNANT WOMEN ATTENDING SOME CLINICS IN KANO METROPOLIS

Khadija Mahbub

Abstract

This study investigates the impact of malaria prevention and control measures on malaria parasitemia among pregnant women in Kano metropolis. A total of 450 pregnant women from two secondary hospitals—Waziri Shehu Gidado General Hospital (n = 150) and Mariya Sunusi General Hospital (n = 300)—were enrolled. Antenatal data, including the history of antimalarial drug use, parity, and gestational age, were collected with the assistance of midwives. A structured questionnaire captured socio-demographic data and fever history, while malaria status and parasite densities were assessed using Giemsa-stained blood films. Packed cell volume (PCV) was determined using an automated hematology analyzer. Results indicated a malaria prevalence of 30.7% at WSGH and 28% at MSGH. Malaria parasite densities were significantly higher in symptomatic individuals (4007.29 ± 1471.38) compared to asymptomatic ones (1423.78 ± 1020.88 , $P < 0.05$). The highest malaria occurrence was observed in the 21-25 age group (38.8%), rural residents (55.7%), and primigravidae (33.13%). No significant association was found between malaria incidence and education level. PCV levels were linked to malaria incidence, while blood group A+ showed a strong correlation with malaria infection. Among preventive measures, women using insecticide-treated nets (ITNs) reported the lowest malaria incidence (0%), followed by those on prophylaxis (20.5%). The study concludes that ITNs, insecticide spraying, and prophylaxis are effective malaria control measures for pregnant women, with age, gestational age, and parity being significant risk factors for malaria infection.

Keywords: Malaria, Pregnancy, Prevention, Control Measures, Parasitemia.

245 ETHNO BOTANICAL SURVEY OF PLANTS USED IN THE TREATMENT OF MALARIA BY THE TIV PEOPLE OF USHANGO LOCAL GOVERNMENT AREA OF BENUE STATE, NIGERIA

***¹Madara A. A. and ²Iornem N. P.**

¹Department of Biology, Faculty of Basic Science, Federal University of Health Sciences Azare P.M.B. 45 Azare Bauchi State

² Department of Biological Sciences, Faculty of Science University of Abuja, P.M.B. 117, Abuja Nigeria, Nigeria.

*Corresponding author's email address:

albahjimadara@yahoo.com,

Abstract

An ethnobotanical survey of herbal plants used by the Tiv people of Ushongo Local Government Area of Benue State for the treatment of malaria was carried out. The survey was aimed at identifying the plants used in the treatment of malaria among Tiv people. Information was collected by interviewing indigenous Tiv herbal medicine practitioners, herb sellers, and farmers using interviews and a structured questionnaire. A total of 31 plant species belonging to 25 families were recorded from the surveys that are being used in herbal antimalarial recipes. *Fabaceae* was most represented with 4 species (12.9%), followed by *Poaceae*, *Bromeliaceae*, and *Anacardiaceae* with 2 species each representing 6.45%, respectively, while the remaining 21 families had 1 species each (3.84%). Investigations were carried out on the plant part used, the method of preparing the herbal antimalarial recipe, and how it is administered. The results showed that the most used part of the plants was the leaves (61.29%), followed by a combination of bark and roots (25.80%), and a combination of leaves, bark, and roots (12.90%). Water was the main medium of antimalarial recipe preparations, irrespective of the part, whole plant, or combination of parts or whole plants used. Though a large number of plants that are traditionally used for the treatment of malaria were identified, scientific validation of the traditional claims of antimalarial potency is required in order to establish their candidature for any possible future research for active principles.

Keywords: ethnobotanical, survey, plants, treatment, malaria, Tiv people

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IN VITRO ANTI-TRYPANOSOMAL ACTIVITY OF ASCOMATA SPP, GLIOCLADIUM ROSEUM AND EPICOCUM PURPURASCENS EXTRACTS

¹Sani Tajo Tukur and ²Yusuf Na Allah Jega,

¹Department of Science laboratory Technology, Federal Polytechnic, Kabo, Kano State, Nigeria, *Corresponding author's email address and phone number: Sanitajo88@gmail.com,

²Department of Biological Science, Bayero University, Kano Nigeria

Abstract

Human African Trypanosomiasis (HAT) is a

vector-borne parasitic disease that is among the most neglected diseases in the world. They cause major health and economic problems in rural sub-Saharan Africa. The main aim of the current research was to evaluate the anti-trypanosomal activity of some Ascomata spp., *Gliocladium roseum*, and *Epicoccum purpurascens* extracts against *Trypanosoma brucei* brucei in vitro efficacy using white albino rats as animal models. Sequential extraction of plant samples in ethyl acetate and water afforded the crude extracts. In vitro assays were carried out in 96-well microtitre plates, and diminazine acetate was used as a positive control. The extracts generally demonstrated higher activity at the highest concentration of 1.0 mg/mL at the highest hour. Findings from the statistical analysis revealed significant differences ($p < 0.05$) between the extract and the control group. This result presents the basis for which these plants can be used for the treatment of trypanosomiasis. In conclusion, the study established that Ascomata spp., *Gliocladium roseum*, and *Epicoccum purpurascens* have in vitro anti-trypanosomal compounds. Based on the findings of the current study, it is recommended that extracts of Ascomata spp., *Gliocladium roseum*, and *Epicoccum purpurascens* may be used as alternative remedies for African trypanosomiasis.

Keywords: Human African Trypanosomiasis, Ascomata Spp., *Gliocladium Roseum*, *Epicoccum*

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ANALYSIS OF ANTIOXIDANT VITAMINS, TOTAL PHENOLIC CONTENT AND ANTIOXIDANT CAPACITY IN NEOCARYA MACROPHYLLA (GINGER BREAD PLUM) UNDER DIFFERENT PRESERVATION TECHNIQUES

***¹Muhammad Salihu Ibrahim, ²Abubakar Abdullahi, ³Abubakar Usman Zage, ⁴Rukayya Magaji Aminu**

*Corresponding author's email address:

muhammadibrahim1247@gmail.com

Abstract

In this study, ripe, fresh, shaded, and sun-dried fruits of *Neocarya macrophylla* (gingerbread plum) samples were analyzed for vitamin E and vitamin C using high-performance liquid chromatography (HPLC). Total phenolic contents and antioxidant capacity were determined by using a spectrophotometer. The amounts of vitamin E and C in fresh, shade-dried, and sun-dried samples were found to be 15.11 ± 1.53 and 8.21 ± 0.72 , 11.63 ± 1.23 and 6.17 ± 0.11 , 6.89 ± 0.15 , and 2.73 ± 0.08 mg/100 g, respectively. The results showed a significant decrease ($p < 0.05$) in the amount of vitamins when compared with the fresh values. The total phenolic content in the fresh sample was found to be 613.24 ± 9.31 mg/100 g DW GAE. Drying under the

sun significantly decreased ($p < 0.05$) the total phenolic content to 317.56 ± 5.33 mg/100 g DW GAE, indicating a 48.21% decrease. TEAC and IC50 are good indicators of antioxidant activity, and in fresh samples the TEAC and IC50 were found to be $36.19 \pm$ mol Trolox/g DW and 23.62 mg/mL, respectively, while in sundried samples they were found to be $19.14 \pm$ mol Trolox/g DW and 35.17 mg/mL, respectively. However, the antioxidant activity was found to significantly decrease ($p < 0.05$) in sun-dried samples when compared with the fresh values. The present study shows that the shade drying method is a better technique for preserving Neocarya Macrophylla (gingerbread plum) fruit for later consumption.

Keywords: Neocarya Macrophylla, Vitamins, Antioxidant Capacity, Phenolic Content.

248 EFFECT OF BIOLOGICAL DRAWING SKILLS ON SENIOR SECONDARY II STUDENTS' MOTIVATION AND PERFORMANCE IN BIOLOGY, GOMBE STATE, NIGERIA

Usman Ahmed

Email address: usmanahmed.ua853@gmail.com

Abstract

Integrated Science Education, School of Secondary Education (Sciences), Federal College of Education (Technical), Gombe, PMB 60 Gombe State, Nigeria. Abstract: This study examines the relationship between biological drawing skills and student motivation and performance in the subject of biology at the senior secondary II level in Gombe, Gombe State, Nigeria. The sample for this study consisted of students from various schools in Gombe who were in their second year of senior secondary education. The data was collected through questionnaires and tests administered to the students. The results of the study showed a significant positive correlation between biological drawing skills and student motivation and performance in biology. Students with stronger drawing skills were found to be more motivated and performed better in the subject. This study highlights the importance of incorporating drawing activities in biology classes to enhance students' motivation and performance. The findings have implications for educators and curriculum developers in Gombe, Nigeria, and other similar settings, as they can use this information to improve the teaching and learning of biology. This study also opens up avenues for further research on the impact of drawing skills on student learning in other subjects.

Keywords: Biological Drawing Skills, Student Motivation, Academic Performance

249 ISOLATION AND SENSITIVITY PATTERN OF TINEA CAPITIS AMONG SOME CHILDREN ATTENDING INFORMAL SCHOOL IN WUDIL LOCAL GOVERNMENT, KANO STATE NIGERIA

Zakiyya Ali Baba

Federal Polytechnic Kabo, Kano State

Email address and phone number:

zakiyyaalibaba6000@gmail.com

Abstracts

Tinea capitis is a dermatophyte infection of the scalp and hair that affects a large number of people worldwide. The disease commonly affects children in Nigeria; the burden of Tinea capitis is worrisome, affecting over 15,000,000 school-age children. The study's aim is to isolate and identify the sensitivity pattern of tinea capitis among children attending informal school in Wudil local government, Kano State. The population of the study was 100 informal schools. Children from three different school areas were screened, and 34% were diagnosed to have tinea capitis after mycological culture and microscopy out of 34 positive samples 10 (29.41%) were found positive for microsporum canis, 8 (23.52%) were also positive for trichophyton rubrum, and 6 (17.64%) showed positive for microsporum audouinii, 5 (14.70%) were positive for trichophyton soudanense, other dermatophytes such as Aspergillus fumigatus were positive, 3 (8.82%) and Beauveria bassiana show positive 2 (5.88%). The findings from the study show that improper sanitation, taking baths regularly, and unhygienic environmental conditions play a vital role in the transmission of dermatophytes. The schoolchildren should be treated with oral antifungals such as griseofulvin, terbinafine, itraconazole, ketoconazole, and fluconazole. The government should be visiting the informal schools regularly and providing them with adequate food and shelter, and they should be advised that personal items, hats, combs, and pillows should be washed frequently and disinfected where possible to prevent re-infection of infection.

Keywords: Tinea Capitis, Dermatophyte, Sensitivity, Informal School, Antifungal.

250 IMPACT OF MALARIA PREVENTION AND CONTROL MEASURES ON MALARIA PARASITEMIA AMONG PREGNANT WOMEN ATTENDING SOME ANTENATAL CLINICS IN KANO METROPOLIS

Khadija Mahbub Garba

Email address and phone number:

khadimahbub015@gmail.com

Abstract

Malaria infection during pregnancy poses significant risks to both mother and fetus. This study examines the impact of malaria prevention and control measures on malaria parasitemia among 450 pregnant women attending clinics in Kano metropolis, Nigeria. Participants were from Waziri Shehu Gidado General Hospital (n=150) and Mariya Sunusi General Hospital (n=300). Data on antenatal history, including antimalarial drug use, parity, and gestational age, were collected, and a structured questionnaire documented socio-demographic information and fever history. Malaria status and parasite density were determined microscopically, while packed cell volume (PCV) and blood group were analyzed. The study found malaria rates of 30.7% at WSGH and 28% at MSGH, with higher incidence in women aged 21-25 years (38.8%), rural residents (55.7%), and primigravidae (33.13%). Blood group A+/- was strongly linked to higher malaria risk, while western education showed no significant association. Insecticide-treated nets recorded the lowest malaria incidence (0%), followed by malaria prophylaxis (20.5%), with insecticide spraying also effective. Follow-up results confirmed these measures as key strategies for reducing malaria. Factors like age, parity, and rural settlement were associated with increased susceptibility, underscoring the importance of prevention measures such as insecticide-treated nets and prophylaxis.

Keywords: Malaria Prevention, Pregnant Women, Parasite Density, Control Measures.

251 IMPROVING PANDEMIC PREPAREDNESS: A STUDY OF COVID 19 EXPERIENCED

Fuad Muhammad Sabo

Email address: fuadmuhdsabo@gmail.com

Abstract

This seminar investigates how to improve pandemic preparedness by examining lessons from the COVID-19 pandemic. It discusses the challenges faced by public health workers, particularly the psychological distress experienced by healthcare professionals, and assesses their adherence to prevention measures. The study uses content analysis and reveals significant challenges faced by healthcare workers, including inadequate PPE, reuse of disposable PPE, and fear and uncertainty. Nigerian nurses reported stigma in their communities, being viewed as a threat due to their care for COVID-19 patients. The seminar recommends that hospitals provide adequate testing equipment, ensure a safe working environment, and supply sufficient PPE to support nurses. Additionally, top management should offer consistent support, and nurses should be kept updated with the latest information on the virus, including precautions and

management strategies. Providing accurate information can reduce fear and negative emotions associated with the disease. The recommendations emphasize the need for proper infection control supplies and continuous education to help healthcare workers effectively respond to future pandemics.

Keywords: Nurses, COVID-19, Pandemic, PPE, Preparedness, Management.

252 EVALUATION OF KNOWLEDGE AND PRACTICE OF PHARMACOVIGILANCE AMONG HEALTH CARE WORKERS IN YOBE STATE SPECIALIST HOSPITAL DAMATURU. YOBE STATE

¹Gogori, I.B , ²Gimba. S. N.,³

Sule, M.I. and ⁴Hadiza Sabo

¹Department of General Studies, Federal Polytechnic Kano, Kano state. Nigeria

²Department of Health Sciences, Lincoln University College, Malaysia

³Department of Pharmaceutical Chemistry, Ahmadu Bello University Zaria. Nigeria

⁴Department of Midwifery, Shehu Sule College of Nursing Sciences, Yobe state. Nigeria

*Corresponding author's email address: sngimba@lincoln.edu.my +2347038361084

Abstract

Pharmacovigilance systems in hospitals play a critical role in ensuring safe medication use by monitoring and reporting adverse drug reactions (ADRs). This study aimed to assess the knowledge and practice of pharmacovigilance among healthcare workers, particularly in ADR reporting, and to explore the causes of underreporting at Yobe State Specialist Hospital, Damaturu. A cross-sectional, non-experimental research design was employed, with 216 participants selected through simple random sampling from a target population of 489. The study's objectives were to determine the level of healthcare workers' knowledge on pharmacovigilance, their practice of ADR reporting, and the reasons for underreporting. Results showed that while respondents demonstrated good knowledge of ADR reporting, there was a lack of practice. The findings suggest that underreporting is due to the absence of an established ADR reporting center in the facility and inadequate incentives from the government. In conclusion, despite awareness of pharmacovigilance, the lack of infrastructure and motivation hinder effective ADR reporting among healthcare professionals.

Keywords: Pharmacovigilance, Evaluation, Knowledge, Healthcare, Workers.

253 PHYTOCHEMICAL SCREENING AND ELEMENTAL ANALYSIS OF TIPUANA PLANT USED IN THE TREATMENT OF TYPHOID IN NORTHEASTERN NIGERIA

S. N. Gimba¹ Sreemoy Kanti Das¹ M.I Sule² and S. Awwalu²

¹Department of Health Sciences, Lincoln University College, Malaysia

²Department of Pharmaceutical Chemistry, Ahmadu Bello University Zaria, Nigeria

*Corresponding author's email address:

salehngimba@yahoo.com

Abstract

Typhoid fever remains a significant global health concern, particularly in regions with limited access to modern healthcare. Traditional herbal remedies, such as those derived from *Tipuana* species, are often used for their perceived medicinal properties. This study aimed to analyze the phytochemical and elemental composition of *Tipuana* plant extracts and assess their potential in managing typhoid fever. Fresh leaves and stem bark of the *Tipuana* plant were collected, dried, and extracted using solvents of varying polarities. Antibacterial activity against *Salmonella typhi*, the causative agent of typhoid fever, was evaluated through preliminary pharmacological assays. The phytochemical analysis revealed the presence of bioactive compounds, including alkaloids, flavonoids, tannins, saponins, glycosides, and phenolic compounds in both the leaf and stem bark extracts. Additionally, the extracts exhibited significant antibacterial activity against *Salmonella typhi*, with inhibition zones ranging from moderate to substantial. The study concludes that *Tipuana* plant extracts contain diverse phytochemicals with potential therapeutic benefits for typhoid fever. However, further in vivo studies are necessary to validate the safety and efficacy of *Tipuana*-derived treatments, paving the way for the development of novel phytotherapeutic agents to combat typhoid.

Keywords: Phytochemical, Screening, *Tipuana*, Plant, Typhoid, Northeast.

254 ANTIBACTERIAL ACTIVITY OF ALLIUM SATIVUM (GARLIC) AGAINST UPPER RESPIRATORY TRACT ISOLATES OF PATIENTS ATTENDING AMINU KANO TEACHING HOSPITAL, KANO STATE, NIGERIA

Jamaluddin Dawusu Umar

Federal Polytechnic, Kobo, Kano State, Nigeria.

Email address and phone number: jdumar478@gmail.com

Abstract

This study investigates the antibacterial activity of *Allium sativum* (garlic) against upper respiratory tract isolates. The research evaluated the secondary metabolites, antibacterial properties, minimum inhibitory concentration (MIC), and minimum bactericidal concentration (MBC) of garlic's bioactive compounds. A total of 50g of garlic powder was soaked in 250ml of 75% ethanol for 72 hours, and the extract was filtered. Phytochemical analysis revealed the presence of alkaloids, glycosides, steroids, saponins, and tannins in the ethanolic extract, while the aqueous extract only contained steroids and saponins. Antibacterial activity was assessed against *Staphylococcus aureus*, *Klebsiella pneumoniae*, and *Streptococci pneumoniae*. At 1000 µg/ml concentration, the garlic aqueous extract exhibited zones of inhibition of 14.15±0.05a for *S. aureus*, 13.15±0.70 for *K. pneumoniae*, and 14.02±0.01b for *S. pneumoniae*. At 500 µg/ml and 250 µg/ml, reduced inhibition was observed. The MIC for *K. pneumoniae*, *S. pneumoniae*, and *S. aureus* was positive at 250 mg/ml, with *S. pneumoniae* and *K. pneumoniae* also showing positive results at 125 µg/ml. The study concludes that garlic extract is a safe and effective agent for treating upper respiratory tract infections. It is recommended that further research should explore the antimicrobial properties of garlic combined with ginger to assess its efficacy against lower respiratory tract infections.

Keywords: Antibacterial Activities, *Allium Sativum* (Garlic), Upper Respiratory Tract Isolates

255 INVESTIGATING THE EFFECTS OF AIR POLLUTION ON CARDIOVASCULAR HEALTH: A LONGITUDINAL STUDY IN URBAN ENVIRONMENTS

Khadija Sule Kura

School of health sciences, Department of Public Health, Federal Polytechnic Kobo, Kano State, Nigeria. Polytechnic Street

Gyaranji Quarters Kobo Town, Kobo Local Govt, Kano State

Email address: khadijakura9@gmail.com

Abstract

Air pollution significantly affects human health, particularly cardiovascular health. This longitudinal study examines the impact of air pollution on cardiovascular outcomes in urban environments over five years, focusing on participants from Kano State exposed to varying pollution levels. A multidisciplinary approach integrates epidemiological, clinical, and environmental data to assess the relationship between air pollution exposure and cardiovascular health. Participants undergo regular health assessments, including clinical examinations, blood pressure measurements, and biomarker analyses. Strategically placed air quality monitoring stations continuously measure levels of particulate matter (PM), nitrogen dioxide (NO₂), sulfur

dioxide (SO₂), ozone (O₃), and carbon monoxide (CO). Geospatial analysis maps participants' residential locations, correlating individual exposure to pollutants with health outcomes. The primary outcomes include the incidence and progression of cardiovascular diseases such as hypertension, coronary artery disease, and stroke. Secondary outcomes involve changes in blood pressure levels, heart rate variability, and markers of systemic inflammation. Statistical analyses, including regression models and time-series analyses, assess the association between air pollution and cardiovascular health while controlling for confounding variables such as age, sex, socioeconomic status, and lifestyle factors. The study offers insights into the long-term effects of air pollution on cardiovascular health in urban populations. Findings could inform public health policies and interventions aimed at mitigating the adverse impacts of air pollution on cardiovascular morbidity and mortality, emphasizing the urgent need for targeted actions to address this critical public health challenge.

Keywords: Air Pollution, Cardiovascular Health, Urban Environments, Particulate Matter.

256 ANTIULCER CAPABILITIES OF THE METHANOL WHOLE PLANT

EXTRACT OF *Elytraria marginata* Vahl ON EXPERIMENTALLY INDUCED GASTRIC ULCERATION IN WISTAR ALBINO RATS

¹Ogbiko Cyril * & ²Sison Emiliano Jr

¹Department of Pharmaceutical and Medicinal Chemistry, Faculty of Pharmaceutical Sciences, David Umahi Federal University of Health Sciences, Uburu, Ebonyi State Nigeria

²Department of Pharmaceutical and Medicinal Chemistry, Faculty of Pharmacy, Madonna University of Nigeria, Elele, River State Nigeria

*Corresponding author's email address and phone number: cyrilogbiko@gmail.com, ogbikoc@dufubs.edu.ng,

Abstract

Elytraria marginata is traditionally used in Nigerian folk medicine for various ailments, including fever, pulmonary issues, inflammation, wound healing, and cancer. Gastric ulceration, a significant gastrointestinal disorder contributing to global mortality and morbidity, has raised concerns among healthcare practitioners regarding the side effects of current antiulcer medications. This study investigates the effects of *E. marginata* methanol extract, derived from the roots, stems, and leaves, on aspirin and hydrochloric acid-ethanol-induced ulceration in albino rats, comparing its efficacy to that of standard drugs Ranitidine and Omeprazole. The acute oral toxicity profile of the extract was established using Lorke's method. The infusion of the whole plant at doses of 100, 200, and 400 mg/kg body weight demonstrated 45.65%, 52.71%, and 69.44% protection against

ulceration, respectively, compared to 51.67% and 77.65% protection offered by Ranitidine and Omeprazole, respectively. In a model using 0.3 M hydrochloric acid in a 60% ethanol mixture, the extract provided 52.44%, 64.22%, and 75.61% protection, compared to 59.20% and 88.10% from the standards. The untreated group exhibited 0% gastric ulcer inhibition. No mortality was observed at 8 g/kg p.o. after 24 hours, nor were there signs of delayed toxicity after 14 days. Thus, the study suggests that the methanol extract of *E. marginata* can protect against aspirin and ethanol-induced gastric ulcers in experimental animals.

Keywords: Anti-Ulcer, *Elytraria Marginalata*, Methanol Extract, Toxicity.

257 DRUGS OR SUBSTANCE ABUSE AND ITS RELATIONSHIP TO MENTAL HEALTH AND COMMUNAL/SOCIETAL CONFLICTS

Abubakar Salihu

Department Of General Studies, Federal Polytechnic Kobo, Kano Nigeria.

Email address and phone number: asmtumfafi@gmail.com, +2348034511976

Abstract

The global rise in the use of alcohol and other psychoactive substances is a growing concern, with reports indicating rapid increases in usage worldwide (WHO, 2004). According to the United Nations Office on Drugs and Crime (UNODC), the prevalence of various habit-forming substances varies significantly across different regions, contributing substantially to the disease burden and social issues in many countries (WHO, 2012). In Nigeria, substance use is closely linked to psychiatric illnesses, which in turn result in communal and societal disturbances (Yunusa et al., 2011). The 2018 UNODC report indicated that approximately 10.8% of the population engages in substance abuse, with a higher prevalence among males (92.2%) compared to females (8.8%), particularly in the 14-39 age group. Substance abuse can lead to severe health complications, including cardiovascular issues, nausea, seizures, strokes, and mental confusion, collectively referred to as psychoneurosis conditions. These health problems can impair memory, attention, and decision-making abilities, complicating daily life and increasing the likelihood of engaging in serious crimes such as rape, homicide, armed robbery, or vandalism. Ultimately, illicit drug use has a profound impact on brain health, often resulting in psychosis or other psychiatric disorders, thereby exacerbating social problems.

Keywords: Substance Abuse, Mental Health, Nigeria, Psychosis, Social Issues.

258 POTENCY OF CHLOROFORM FLOWER EXTRACT OF AZADIRCHTA INDICA (NEEM) AGAINST CLINICAL ISOLATES ASSOCIATED WITH EYE INFECTION

***¹Abubakar Abdullahi, ²Muhammad Salihu Ibrahim, ³Rukayya Ahmed Habib, ⁴Fatima Muhammad Wada**

¹Department of Science Laboratory Technology, Federal Polytechnic Kobo, Kano State, Nigeria

²Department of Pharmaceutical Technology Federal Polytechnic Kobo, Kano State, Nigeria. ³Department of Life Sciences, Kano State Polytechnic, Nigeria

⁴Department of Science Laboratory Technology, Kano State Polytechnic

*Corresponding author's email address: abujigirya@gmail.com

Abstract

A study on the phytochemical and antibacterial effects of chloroform flower extract (CFE) of *A. indica* against some clinical isolates associated with eye infection, namely *Staphylococcus aureus*, *Kleibseilla* species, and *Pseudomonas aeruginosa*, was carried out using agar diffusion and broth dilution methods. Physicochemical properties showed that CFE was dark brown in color, pungent in smell, and dry in texture. Phytochemical screening revealed the presence of reducing sugar, tannins, steroids, flavonoids, saponins, phalabactanins, and alkaloids, while resins and anthraquinones were absent. The result of the antibacterial activities obtained showed that CFE possessed the highest antibacterial activity against *Pseudomonas aeruginosa* with an inhibition zone of 16 mm, followed by *Kleibseilla* species with an inhibition zone of 15 mm and *Staphylococcus aureus* with an inhibition zone of 13 mm at a concentration of 5000 $\mu\text{g/ml}$, respectively. The minimum inhibitory concentration (MIC) of the CFE was 156.26 $\mu\text{g/ml}$ against *Staphylococcus aureus* and *Kleibseilla* species and 312.5 $\mu\text{g/ml}$ against *Pseudomonas aeruginosa*. The Minimum Bactericidal Concentration (MBC) of CFE was 625 $\mu\text{g/ml}$ against *Kleibseilla* species and *Pseudomonas aeruginosa*, and 312.5 $\mu\text{g/ml}$ against *Staphylococcus aureus*.

Keywords: Antibacterial Activities, *Azadirachta Indica*, Phytochemical Screening, Chloroform

259 PREVALENCE OF HELICOBACTER PYLORI AMONG ADULT ULCER PATIENTS IN KANO, NORTHERN NIGERIA

Abubakar Usman Zage

Department of Pharmaceutical Technology, Federal Polytechnic Kobo, Kano State, Nigeria

Abubakar Usman Zage Department of Pharmaceutical Technology, Federal Polytechnic Kobo, Kano State, Nigeria

Email address: zage1319@gmail.com

Abstract

Helicobacter pylori infection is a global public health problem, affecting over 50% of the population worldwide. The study was aimed at determining the prevalence of *H. pylori* among adult patients diagnosed with ulcers attending Murtala Muhammad Specialist Hospital Kano. The study involves 105 adult patients (67 males and 38 females) with symptoms of acid reflux, abdominal pain, dyspepsia, heartburn, vomiting, or bloating attending the General Out-Patient Departments (GOPD) of Murtala Muhammad Specialist Hospital, Kano. About 2 ml of blood samples obtained from each of the 105 adult patients were centrifuged and the serum obtained. The serum samples were tested for anti-*H. pylori* antibodies IgA/IgG by using an enzyme-linked immunosorbent assay (ELISA) kit according to the manufacturer's directions. The result showed that out of 105 samples tested, 59 samples, which accounted for 56.2%, were positive for *H. pylori*. Based on age categories, the prevalence rate was higher among subjects aged 21–40 years (24.8%), while categories aged above 60 years have the least prevalence (7%). However, the result is not significant ($P = 0.9571$). Based on the sex of the subjects, out of 67 male samples tested, 43 samples (41.0%) were positive for *H. pylori*, while 16 samples from a total of 38 female samples, which accounted for 15.2%, were positive for *H. pylori*. It is concluded that *H. pylori* can lead to upper gastrointestinal disorders, such as peptic ulcer.

Keywords: *Helicobacter Pylori*, Hospital, Kano, Prevalence, Ulcer

260 SORPTION OF ALIZARIN RED FROM AQUEOUS SOLUTION USING CHITOSAN~CHARCOAL COMPOSITE

***¹Ikeke Kingsley, ²Pro A. O. 2adetuyi, M, ³Maliki S.O.Olubodun**

¹Department of Science Laboratory Technology, Edo State Polytechnic, Usen, Edo State, Nigeria ²Department of Chemistry, Federal University of Technology, Akure, Ondo State, Nigeria.

³Department of Chemistry, Edo State University Uzairu, Nigeria.

⁴Department Medical Biochemistry University of Benin Nigeria

*Corresponding author's email address: kekeki@edopoly.edu.ng

Abstract

It is estimated that over 10% of the dye used in textile processing does not bind to the fibers and is therefore released to the environment. Some of these compounds cause serious threats because of their carcinogenic potential or cytotoxicity. The study investigated the removal efficiency of alizarin red from an aqueous

solution using chitosan's charcoal composite as an adsorbent. Deproteinization was carried out by placing 200 g of powdered snail shell in 4% w/v NaOH for 2 hours. The sample was then placed in 1% HCl for 24 hours to remove CaCO₃. Deacetylation was done by boiling in 50% NaOH for 2 hours. 10% oxalic acid was used to dissolve the chitosan before mixing with charcoal at 550 °C to form the composite. The composite was characterized by Fourier Transform Infra-Red and Scanning Electron Microscopy measurements. The efficiency of adsorption was evaluated by varying pH of the solution, contact time, initial concentration, and adsorbent dose. Maximum removal of alizarin was achieved at pH 4 for composite, while pH 2 and 5 were obtained for chitosan and charcoal, respectively. The results showed that adsorption of Alizarin red followed the pseudo-second-order rate equation and fit the Langmuir and Freundlich isotherms. The data showed that composite was best suited for crystal violet removal. Thermodynamic parameters such as enthalpy change (ΔH°), free energy change (ΔG°), and entropy change (ΔS°) indicate that the adsorption process of Alizarin red was endothermic, spontaneous, and feasible.

Keywords: Alizarin Red (ARS), Chitosan's Charcoal Composite, Extraction Process, Sorption.

261 A STUDY OF THE INFLUENCE OF HUSBANDS IN FAMILY PLANNING PRACTICE IN DAWAKIN TOFA LOCAL GOVERNMENT AREA KANO STATE NIGERIA

Kamilu Ishaq

Federal Polytechnic Kobo, Department Of Public Health

Email address and phone number:

kamiluishaq2015@gmail.com.

Abstract

Despite numerous studies on family planning primarily focusing on women, the role of husbands in family planning practices remains underexplored. This research aims to investigate the influence of husbands on family planning in Dawakin Tofa Local Government. Utilizing the health belief model as a theoretical framework, the study employed both quantitative and qualitative data collection methods. Multi-stage cluster sampling was used to select 152 respondents, including two health workers from the area. In-depth interviews were conducted with four respondents, comprising two males and two females from different settlements. The quantitative data were coded and analyzed using the Statistical Package for the Social Sciences (SPSS), while qualitative data were transcribed and analyzed thematically, incorporating verbatim quotes from respondents. Findings revealed that while some women practice family planning with their husbands' permission, others do so secretly without

approval. The research underscores the importance of male involvement in family planning decisions. It recommends that husbands be encouraged to support their wives by granting permission to visit family planning clinics, providing transportation, and covering the costs of family planning services.

Keywords: Family Planning, Husband, Permission, Patriarchal

262 IN-VITRO ANTIBIOTICS RESISTANCE PATTERNS OF ACINETOBACTER SPP ISOLATED FROM CLINICAL SAMPLES OF PATIENTS IN THREE TERTIARY HOSPITALS OF KANO METROPOLIS, NORTHWESTERN NIGERIA

^{*1}Alkali Bashir, ²Hamisu I. Takalmawa, Kadai

^{2,4}Adamu Almustapha Aliero, Agwu Ezera

¹*Department of Life Science, School of Technology, Kano State Polytechnic, Kano, Nigeria.*

²*Department of Medicine, Faculty of Clinical Sciences, Bayero University, Kano State, Nigeria,*

³*Department of Microbiology, Faculty of Life Sciences, Kebbi State University of Science and Technology Aliero, Kebbi State, Nigeria.*

⁴*Department of microbiology, Faculty of Biomedical science, Kampala international university Uganda.*

**Corresponding author's email address: balkali2012@gmail.com, alkalibashir@kiu.ac.ng*

Abstract

Acinetobacter baumannii is one of the most important opportunistic bacterial pathogens that cause serious health care-associated complications in hospitalized patients. Rise in multidrug resistance among clinical isolates limits therapeutic options; this leads to prolonged hospital stays, which increase cost to both the healthcare provider and the family of the patients. The study determined in vitro antibiotic resistance patterns of *Acinetobacter* spp. isolated from clinical samples of patients in three tertiary hospitals in Kano Metropolis, Northwestern Nigeria. A total of 401 samples were collected from orthopedic and post-surgical wound infections, urine, urine catheters, and nasal intubation patients. *Acinetobacter* spp. was isolated using standard microbiological methods. Identification of *Acinetobacter* spp. was done using Leed *Acinetobacter* medium, conventional biochemical tests, and API 20NE. Suspected *Acinetobacter* spp. was further confirmed using PCR and Sanger sequencing methods. Antibiotic susceptibility tests were done using the disc diffusion method. Minimum inhibitory concentrations (MIC) were determined using the E-strip test. *Acinetobacter* represented 14/138 (10.1%). Results of the antimicrobial resistance pattern to 12 different antibiotics against *Acinetobacter* spp. revealed that ampicillin/sulbactam (92.8%), cotrimoxazole (85.7%),

amoxicillin (85.7%), and gentamycin (78.6%) were the most resistant antibiotics among all antibiotics tested. However, Ciprofloxacin (14.4%), Amikacin (21.4%), and Nitrofurantoin (42.9%) were the most sensitive and promising antibiotics against *Acinetobacter* infections from our study area.

Keywords: Antibiotic Resistance, *Acinetobacter Baumannii*, Patients, Kano

263 CANCER PROLIFERATION

¹Ibrahim Hamza Kankia, ²Simon Langdon and ³Yusuf Deeni

¹Department of Biochemistry, Umaru Musa Yar'adua University, Katsina, Nigeria,

²Institute of Genetics and Cancer, University of Edinburgh, United Kingdom.

³Department of Microbiology and Biotechnology, Federal University, Dutse, Jigawa, Nigeria.

*Corresponding author's email address and phone number: ibrahim.hamza@umyu.edu.ng;

Abstract

Garlic (*Allium sativum* L.) is a natural product that has many health benefits. It has been shown to inhibit cancer cell migration and invasion in in vitro cancer cells and in vivo animal models. NRF2 and HER family regulate the normal cellular and are determinants of cancer initiation and progression. Both the NRF2 and HER families are implicated in the resistance of numerous cancers to chemotherapeutic agents, and the use of natural products could overcome the resistance. Human ovarian cancer cell lines, OVCAR3 and OVCAR4, were maintained in RPMI 1640 media supplemented with 10% fetal bovine serum (FBS) and 1% pen/strep in 5% CO₂ and incubated at 37°C. Before experimental treatments, cells were grown for 24h in RPMI 1640 media and then treated with either tert-butylhydroquinone (tBHQ; Sigma) or garlic (Carbosynth) to a final concentration as required with media. Following this, a dual luciferase assay, a cytotoxicity assay, ROS detection, a glutathione assay, and immunoblotting were performed in this study. It demonstrated that garlic inhibited the NRF2 activity, which led to downregulation of HER1 and HER4 protein expression and decreased cell growth of OVCAR3 and OVCAR4 cells. Furthermore, inhibition of NRF2 led to an increase in ROS level and depletion of total glutathione in all the cell lines. Taken together, these data suggest that garlic may inhibit the cell growth of ovarian cancer cells through NRF2-mediated downregulation of HER 1 and HER4 expression.

Keywords: Garlic (*Allium Sativum* L.) NRF2, HER1 And HER4, Glutathione, ROS, Cytotoxicity

264 A STUDY OF THE INFLUENCE OF HUSBANDS' PERMISSION IN FAMILY PLANNING PRACTICE IN THE DAWAKIN TOFA LOCAL GOVERNMENT AREA KANO STATE NIGERIA

Kamilu Ishaq

Federal Polytechnic Kabo, Department Of Public Health

Email address and phone number:

kamiluishaq2015@gmail.com

Abstract

Several studies on family planning paid attention to women, with less emphasis on the influence of men's involvement and permission in family planning practice. This research addresses this gap by investigating the impact of husbands in family planning practice in the study area. The study objective was to explore the influence of husbands in family planning practice. The data was collected through quantitative and qualitative methods of data collection. The multi-stage cluster sampling techniques were adopted to select the respondents, in which the political wards in the area were regarded as clusters, and 352 respondents were selected, including 2 health workers working in the study area. 4 respondents were selected for in-depth interviews, which comprised 2 males and 2 females from different settlements in DawakinTofa Local Government. The quantitative data was coded and analyzed using a statistical package for social science (SPSS). The qualitative data was analyzed by transcribing recorded data, including views related to the study objectives and verbatim quotations from respondents. Findings from this research indicated that women practice family planning with their husbands' permission, while some use it secretly without their husbands' approval. The research finds out that males' involvement is highly needed in family planning matters. The research recommended that husbands should be encouraged to support their wives by permitting them to visit family planning clinics, providing transportation, and paying for family planning services.

Keywords: Family Planning, Husband, Permission Patriarchal.

PUBLIC POLICY, LAW & GOVERNANCE

265 SUSTAINING THE SANCTITY OF CULTURAL HERITAGE AS AN INDISPENSABLE TOOL FOR NATIONAL COHESION IN NIGERIA

¹Enu, Donald Bette and ²Unimke, Sylvester Akongi

*1College of Education, Open Distance & E-Learning,
Kampala International University, Uganda*

**Corresponding author's email address: donald.enu@kiu.ac.ug*

*²Department of Social Science Education, University of
Calabar, Nigeria
slyunimke@unical.edu.ng*

Abstract

National cohesion is the central concern of the governance agenda of every country and an unnegotiated national aspiration. This can be achieved through many means. One of the means to achieve this is by sustaining the sanctity of cultural heritage. Cultural heritage is an instrument for national identity, and a country's identity is tied to its collective cultural heritage; hence, it is an obvious centripetal tool to build a lasting and indivisible nation. This paper identified cultural heritage as a progressive and indispensable tool for building a strong, virile, and dynamic nation whose national identity will remain visible and audible. In the context of significantly atrophying the national heritage of the nation's cultural heritage, prioritizing the sanctity of the national cultural values system is one direct way to promote unity, national identity, and integration, all seen as core elements of national cohesion. Data for the paper was sourced from documentary evidence, oral literature, books, periodicals, published journal articles, and festival collections that are evidence-based and facts-driven. Challenges to national cohesion and the profound relevance of cultural heritage in building a credible nation were considered. The paper concluded by determining perspectives for future trends of cultural heritage and national cohesion.

Keywords: National Cohesion, Cultural Heritage, National Identity, Unity

266 LEGAL AND SOCIO-ECONOMIC ISSUES CONCERNING ILLEGAL COMMERCIALIZATION OF HUMAN ORGAN: A CASE STUDY OF NIGERIA AND UGANDA

¹Adesoji Kolawole Adebayo, ²Paul Atagamen
Aidonojie, ³Oluwaseye Oluwayomi Ikubanni,
⁴Godswill Owoche Antai and ⁵Esther Kisubi
Christine

*¹School of Law and Security Studies, Babcock University.
adebayoad@babcock.edu.ng*

*²School of Law, Kampala International University Kampala
Uganda. paul.aidonojie@kiu.ac.ug*

*³Faculty of Law, Joseph Ayo Babalola University.
ooikubanni@jabu.edu.ng*

*⁴School of Law, Kampala International University, Kampala
Uganda. godswill.antai@kiu.ac.ug*

*⁵School of Law, Kampala International University, Kampala
Uganda. esther.kisubi@kiu.ac.ug*

Abstract

As the need for human organ donations surges globally, the illegal commercialization of human organs becomes a dominant phenomenon across the globe, especially in developing nations such as Nigeria and Uganda. In both Nigeria and Uganda, though human organ commercialization has both legal and ethical implications, it remains a major challenge that characterizes and has maligned the health sector of these African states. It is concerning this that this study sorts to examine the legal issues and socio-economic factors concerning the commercialization of human organs in Nigeria and Uganda. The research adopted a doctrinal research methodology; data obtained through primary and secondary sources were analyzed through a descriptive and analytical approach. The study found that while there are extant laws prohibiting the illegal commercialization of human organs in both Nigeria and Uganda, the menace surges high due to socio-economic factors such as poverty, illiteracy, and scarcity of organ donors, among others. The research concluded that though both Nigeria and Uganda have laws that prohibit the illegal commercialization of human organs, inadequate implementation of these laws and socio-economic issues remain a major challenge to combating the illegal commercialization of human organs. The study therefore recommended that there is a need for adequate enforcement mechanisms for the implementation of these laws. Furthermore, government and the global community must aid in resolving some of these socio-economic issues necessitating the illegal commercialization of human organs.

Keywords: Human Organ Commercialization, Legal Implications, Socio-Economic Factors

267 ISRAEL WAR ON GAZA: THE LEGALITY AND ITS EFFECT ON CIVILIANS

¹Damina Joshua John, ²Paul A. Aidonojie, ³Kelechi
Onwubiko, ⁴Muzahura Huraira, ⁵Muhammad
Khadijah Abdulhameed and ⁶Collins Ekpensisi

¹*School of Law, Kampala International University, Kampala Uganda. paul.aidonojie@kin.ac.ug*

²*School of Law, Kampala International University, Kampala Uganda. paul.aidonojie@kin.ac.ug*

³*School of Law, Kampala International University, Kampala Uganda. kelechi.onwubiko@kin.ac.ug*

⁴*School of Law, Kampala International University, Kampala Uganda. Muzabura.huraira@kin.ac.ug*

⁵*School of Law, Kampala International University, Kampala Uganda. khadijah.muhammad@kin.ac.ug*

⁶*School of Law, Kampala International University, Kampala Uganda. collins.ekpenisi@kin.ac.ug*

Abstract

International Humanitarian Law (IHL) governs warfare by establishing guidelines to protect civilians and non-combatants. Combatants are required to distinguish between military targets and civilians, ensuring the latter are safeguarded from harm. However, the surprise attack by Hamas on Israel on October 7, 2024, and Israel's subsequent retaliation, resulted in significant civilian casualties and destruction. This study questions Israel's compliance with IHL in its continued invasion of Gaza, examining whether the initiation and conduct of the war adhere to international law. Using a doctrinal research methodology, the study analyzes primary and secondary data through descriptive and analytical methods. The findings reveal that both Israel and Gaza have exceeded the boundaries of lawful warfare by targeting civilians and their places of refuge, leading to numerous deaths and injuries. The study concludes that these actions constitute war crimes, crimes against humanity, and possibly genocide, based on the scale of civilian rights violations. It recommends international intervention to halt the conflict, arguing that Israel's continued actions are no longer justifiable under IHL. A ceasefire is urged to prevent further violations of international law.

Keywords: Israel-Gaza war, International Humanitarian Law (IHL), civilian protection

268 A COMPARATIVE ANALYSIS OF THE NIGERIAN PETROLEUM INDUSTRY ACT AND THE UGANDAN PETROLEUM ACT ON THE TREATMENT OF HOST COMMUNITIES IN THE OIL AND GAS SECTOR

¹Ifesinachi Charles Okonji, ²Folake Tafita, ³Oluwaseun Kayode Akinsola & ⁴Olukayode Olalekan Aguda,

¹*Kampala International University, Uganda. ifesinachi.okonji@kin.ac.ug; ²University of Ibadan, Ibadan. fm.tafita@gmail.com; ³Chrisland University, Abeokuta, Nigeria. kakinsola@chrislanduniversity.edu.ng*

⁴*University of Ibadan, Ibadan. oo.aguda@ui.edu.ng*

Abstract

Host communities in the oil and gas sector often suffer from oil pollution and gas flaring, which lead to environmental degradation, loss of farmlands, and health risks such as skin cancer and asthma. To mitigate these impacts, companies engaged in oil and gas exploration often voluntarily engage in corporate social responsibility (CSR) activities, including building schools, providing scholarships, hospitals, and constructing roads. This paper uses a doctrinal and comparative analytical method to examine the relevant laws of Nigeria and Uganda, specifically the Petroleum Industry Act, 2021, and the Petroleum Act, 2013. It assesses how host communities in both countries are treated and draws lessons from each jurisdiction's approach to managing the effects of oil and gas exploration. The study also identifies challenges and offers recommendations to benefit both countries in their treatment of host communities. The goal is to ensure that the negative consequences of oil and gas operations are minimized, while the needs of the people and the environment are better preserved.

Keywords: Host communities, Oil and gas sector, Corporate social responsibility

269 AN ASSESSMENT ON THE IMPACT OF COMMUNITY POLICING IN CRIME PREVENTION AND CONTROL IN FAGGE LOCAL GOVERNMENT AREA, KANO STATE, NIGERIA

Aliyu Shitu Said

Email address: aliyushitu@gmail.com

Abstract:

Rising crime rates and general insecurity, coupled with the inability of police agencies to control crime, have led to the introduction of community policing to foster collaboration between the police and community members. This study assesses the impact of community policing on crime prevention and control in Fagge Local Government Area, Kano State, Nigeria. It also explores the elements, roles, and challenges of community policing in the region. Using Broken Window and Routine Activity theories as analytical frameworks, the study sampled 308 respondents, including 300 community members surveyed through multistage cluster sampling and 8 respondents interviewed in-depth. Findings show that community policing has a positive impact on crime prevention and control in Fagge. The study also reveals that the elements and roles of community policing are effective, with a strong relationship between the police and the community. The research recommends increased government support for community policing initiatives and greater public awareness to enhance collaboration between the community and the police in

crime prevention efforts.

Keywords: Community, Policing, Crime, Prevention, Control.

270 ASSESSING THE EFFECTS OF ONLINE EDUCATIONAL TECHNOLOGY UTILISATION ON ACADEMIC INTEGRITY IN TERTIARY INSTITUTIONS: A STUDY OF THE NATIONAL OPEN UNIVERSITY OF NIGERIA (NOUN)

¹Jacob Eneji Ashibi, ²Patience Onyangbe Ashibi

¹*Department of Development, Peace & Conflict Studies, Kampala International University, Uganda. Corresponding author's email address: jacob.ashibi@kiu.ac.ug eashibi@noun.edu.ng* ²*Department of Educational Administration & Planning, Kampala International University, Uganda. patience.ashibi@kiu.ac.ug*

Abstract

The advent of Online Educational Technologies (OET) has transformed teaching and learning in tertiary institutions by offering greater accessibility, flexibility, and personalized learning experiences. However, concerns about its impact on academic integrity have arisen. This study examines how OET utilization affects academic integrity in Nigerian online tertiary institutions, specifically exploring its influence on staff and student behaviors. A mixed-methods approach was used, with quantitative data collected through a questionnaire administered to 384 students from the National Open University of Nigeria (NOUN) and qualitative data gathered via interviews with 18 teaching and non-teaching staff. The findings highlight challenges such as limited access to digital devices, internet disruptions, poor digital literacy, and declining staff commitment. Despite these obstacles, OET utilization at NOUN has reduced academic misconduct and enhanced quality assurance in teaching and learning processes. The study recommends providing tailored digital devices, improving ICT capacity for staff and students, enhancing internet speed, and offering better staff incentives to boost commitment.

Keywords: online educational technology, academic integrity, academic misconduct

271 IMPACTS: HOW POOR GOVERNANCE AFFECTS AFRICAN COUNTRIES

Dauda Haruna

*Federal Polytechnic Kano, Kano State Nigeria.
Email address: oboatafi@gmail.com*

Abstract

For thirty years, governance has been debated within theoretical frameworks, especially within the field

of Political Science of Development, focusing on its administrative component in achieving societal goals. Good governance is essential for aligning development with national and international standards, encompassing key elements such as accountability, transparency, the rule of law, consensus orientation, and effectiveness. This study explores good governance as crucial to creating long-term development programs and achieving sustainable regional growth through political engagement with democratic principles. It emphasizes the importance of institutional and state-level governance, with particular attention to the socioeconomic factors in the reformative phase of good governance. The research highlights how these elements contribute to a framework that supports transparency, accountability, and effective administration to achieve lasting development.

Keywords: Accountability, Transparency, Rule of Law, Consensus Orientation, Effectiveness

272 ARTIFICIAL INTELLIGENCE AND COPYRIGHTS IN EAST AFRICA: CHALLENGES AND OPPORTUNITIES

¹Antai Godswill Owoche, ²Muwaffiq Jufri, ³Abdul Kadir Jaelani, ⁴Hassan Ismaila, ⁵Hilary Nwaechefu and ⁶Paul Atagamen Aidonjio

¹*School of Law, Kampala International University Kampala Uganda*

²*Faculty of Law, Universitas Trunojoyo Madura, Indonesia*

³*Faculty of Law, Universitas Sebelas Maret Surakarta, Indonesia*

⁴*School of Law, Kampala International University, Kampala Uganda*

⁵*School of Law, Kampala International University, Kampala Uganda*

⁶*School of Law, Kampala International University, Kampala Uganda.*

Abstract

The advent of artificial intelligence (AI) has transformed various sectors, including copyright in intellectual property (IP). In East Africa, the harmonization of AI and copyright faces multifaceted challenges alongside numerous opportunities. This research explores whether the benefits of AI should be pursued at the potential expense of copyright protections for authors. It examines the implications of AI-generated content on copyright rights, focusing on the enforcement and protection of intellectual property within the region and evaluating the adequacy of existing legal frameworks. A doctrinal methodology was employed, utilizing primary and secondary research materials, with data analyzed through descriptive and analytical approaches. The findings indicate a lack of a structured legal framework to address copyright issues related to AI-generated

content and highlight the inadequacy of the East African legal system in navigating the complexities of AI and copyright. The study concludes that AI-generated content does not qualify as intellectual property requiring copyright protection; instead, it poses a risk of infringing existing copyrighted works. To address these challenges, the study recommends establishing a comprehensive legal framework in East Africa concerning AI-generated content and its implications for copyright.

Keywords: Artificial Intelligence, Copyright, Intellectual Property, East Africa, Legal Framework.

273 RAPE CASES IN NIGERIA; A PROBLEM OF CRIME CLASSIFICATION IN ISLAMIC CRIMINAL LAW

^{*1}Kenneth Sunday & ²Maunde Usman Muhammad

¹Department of Christian Religious Studies, Faculty of Arts, Taraba State University, Jalingo *Corresponding author's email address:

Kennethsunday612@gmail.com ²Department of Islamic Studies, Faculty of Arts, Taraba State University, Jalingo-NIGERLA usmanmaunde@gmail.com

Abstract

Rape is an abhorrent crime and an abominable sin. This heinous crime is forbidden not only in Islam but in all religions, and all people of sound thinking and pure human nature reject it. Rape is completely forbidden in Islamic law and is a crime punishable by Islam; capital punishment is reserved for the most extreme crimes, those that harm individual victims or destabilize society. Rape falls into both categories. Islam takes very seriously the honor and protection of women, and the Qur'an repeatedly reminds men to treat women with kindness and fairness. The main objectives of this paper are looking at the contemporary days, when many Islamic laws are not being practiced and also change, among them equating rape with sex outside of marriage, which is instead adultery or fornication. However, some scholars have classified rape as a form of terrorism or a crime of violence, considering the gravity of the offense. The methodological approach used in this paper is descriptive, prescriptive, and annalistic, while the method of data collection is empirical.

Keywords: Hadd (punishment), Islamic Law, Rape, Zina (fornication).

274 REFORMATION OF THE GENDER POLICY: UGANDA AND NIGERIA AS A CASE STUDY

¹Khadijat Ibrahim Maifada, ²Paul Atagamen Aidonjje, ³Oluwaseye Oluwayomi Ikubanni, ⁴Adesoji

Kolawole Adebayo & ⁵Charles Ifesinachi Okonji

¹School of Law, Kampala International University, Kampala Uganda. ummubanaaan@gmail.com

²School of Law, Kampala International University, Kampala Uganda. Paul.aidonjje@kin.ac.ug

³Faculty of Law, Joseph Ayo Babalola University. ooikubanni@jabu.edu.ng

⁴School of Law and Security Studies, Babcock University. adebayoad@babcock.edu.ng

⁵School of Law, Kampala International University, Kampala Uganda. ifesinachi.okonji@kin.ac.ug

Abstract

The concept of human rights is regarded as universal, inherent to every individual by virtue of being human. However, recent trends in the global community have focused on gender inequality, often prioritizing the protection of female rights. In Nigeria and Uganda, this focus has led to a perception that, although both genders face inequality, the ideology of gender equality overshadows the broader concept of social justice for all. This study examines the interplay between gender equality and social justice, alongside relevant laws and policies in both countries. Employing a doctrinal methodology, data from primary and secondary sources were analyzed using analytical and descriptive approaches. The findings reveal that while females are significantly affected by inequality, males are increasingly impacted as well. Moreover, existing legal frameworks in Nigeria and Uganda tend to favor female issues related to inequality, often neglecting male perspectives. The study concludes that to effectively protect human rights and ensure equal opportunities for all, there is a need to reform human rights laws to incorporate social justice principles that address the needs of both genders.

Keywords: Human Rights, Gender Equality, Social Justice, Nigeria, Uganda.

275 THE ROLE OF LAW CLINICS IN EXPERIENTIAL LEARNING AT PRIVATE UNIVERSITIES IN AFRICA

¹Olawunmi Opeyemi Obisesan, ²Esther Kyisuubi and ³Brenda Nyapidi

Kampala International University, Uganda

¹olawunmi.obisesan@kin.ac.ug

²esther.kisuubi@kin.ac.ug

³brenda.nyapidi@kin.ac.ug

Abstract

The study assessed the contribution of law clinics to enhancing experiential learning at private universities in Africa. In recent time, legal education has changed and now places more emphasis on practical exposure; hence, the law faculty created law clinics as a pivotal platform for bridging the gap between theoretical knowledge and

experiential exposure. The study explores how such clinics function within the context of a private university in Africa, and this is translated into the impact on the professional development, ethical understanding, and community engagement of students. The study adopts comparative models of the successful approaches and failures of law clinic activities, sharpening opportunities for law clinics in the task of legal education. The study also provides explicit implications for the legal profession and social justice in Africa, in which are proposed strategies that create an opportunity to make law clinics more effective in preparing students for future legal practice. This paper shall move the discourse on clinician innovation and outcomes in the African setting toward optimal experiential learning within the law clinic and legal education.

Keywords: Africa, Experiential Learning, Law Clinics, Legal Education, Private Universities

276 REINVENTING AFRICAN TERRORISM: REALISING MARTYRDOM ENGAGEMENT STRATEGY THROUGH EVIDENTIAL AND ADDITIVE MARKERS IN BOKO HARAM PRE/POST-VIOLENCE TEXTS

Jaafar Ahmad Wakili

Federal university of Kashere,

Email address: jfarahmadwakili83@gmail.com

Abstract

As insecurity keeps deteriorating socioeconomic activities globally, many perspectives are also being taken in proposing solutions. With reference to Nigeria, an area of interest in the present study, many terrorist groups have surfaced in the recent years, with Boko Haram ranked the most deadly by various indices, including the Global Terrorism Index (2021–2022). Is further evident that Boko Haram has in record forced no fewer than 2.8 million people into internal relocation within their own country, out of which over 2 million are Nigerians; those who left their settled homes for their respective actual countries number up to 280,000, aside from another 265,000 others who have taken refuge in neighboring countries that comprise Cameroon, Chad, and Niger (UNDP, 2021). The activities that attract scholars' attention across disciplines have largely been interrogated by linguists as well. Many perspectives, such as literary critique, computer-mediated discourse, and media representation of the actors, have significantly been explored. The present study recognizes terrorists' engagement strategies as a means through which they radicalize members to sustain the group activities. Specifically, the study aims at unveiling martyrdom strategy in Boko Haram through metadiscourse resources as manifest in their discourses. The data comprise sermons, YouTube releases, public lectures,

and Quranic tafsir (Quranic interpretation) of Boko Haram. For analysis, descriptive inference with Hyland's (2005) interpersonal model of metadiscourse and May's (2001) pragmatic act is adopted as the research analytical tool. It is the conclusive assumption of the study that understanding the Boko Haram's engagement strategies is a path towards ending the movement.

Keywords: Insecurity, Boko Haram, Martyrdom Strategy, Metadiscourse, Pragmatic Act.

277 SECURITY THREATS AND SOCIO-ECONOMIC DEVELOPMENT IN AFRICA

Onuk Bulus Ojem

University of Nigeria, Nsukka

onuk.bulus@nsuk.edu.ng

Abstract

Security threats in Africa have far-reaching effects on the socio-economic development of African countries. They can disrupt the normal functioning of African societies, discourage foreign investment, and divert government resources from developmental projects to security-related expenditures. This study aims to examine the impact of security threats on the socio-economic development in Africa, using the state fragility theory as a theoretical framework. The theory proposed by Sara (2008) explains how extreme poverty and low levels of human and social development that challenge a state are linked to weak institutional capacity and poor governance. The study collected data using both qualitative and quantitative methods. The findings revealed that terrorism and other security threats could decrease foreign direct investment and capital formation, increase risk perception among potential investors, and undermine socio-economic development by creating an environment of fear and instability that affects investment and economic growth. The study recommended that African countries and their external partners should prioritize human sustenance and develop security policies addressing people, development, and social issues. Additionally, awareness campaigns should be conducted to educate the public about the dangers of insecurity in schools, churches, mosques, markets, and media outlets.

Keywords: Security Threats, Socio-Economic Development, State Fragility, Foreign Investment

278 SMALL ARMS PROLIFERATION AND NATIONAL SECURITY: AN APPRAISAL OF NATIONAL CONTROL MECHANISMS IN NIGERIA

¹Bilyaminu Suleiman Muhammed and ²Olaniran Olusola

¹*Department of Sociology Nasarawa State University, Keffi Nasarawa State-Nigeria.*

²*Institute for Peace and Conflict Resolution (IPCR) Plot 496, Abogo Largema Street, Central Business District, Abuja*

Corresponding author's email address and phone number:

bilyamins@yahoo.com, bilyasule@nsuk.edu.ng

Abstract

Small arms proliferation is a major challenge and threat to peace and security in Nigeria. Despite global, regional, and national bodies for firearms control mechanisms, there is easy availability and proliferation of these weapons by non-state actors. Conflicts and violent crimes as a result of these arms lead to the loss of lives and displacement of a huge number of people in Nigeria. This paper examines small arms proliferation and national control mechanisms in Nigeria. Secondary data are utilized and sourced mainly from journals, textbooks, workshop reports, government reports, and international agency reports. It is basically descriptive. It is revealed that global conflicts, armed struggles, porous borders and wars in African countries, poverty, corruption, and weak institutions contribute to small arms proliferation in Nigeria. Despite the UNPoA and ECOWAS Convention on Small Arms and Nigerian government laws such as the 1959 Firearms Act, the establishment of the National Center for the Control of Small Arms and Light Weapons, and various internal security outfits, little results are achieved. Also, the obsolescence of the national legal firearms instruments and lack of strict enforcement mechanisms by the security agencies result in escalation of ethnic/communal conflicts, banditry, kidnapping, insurgency, and farmers/herders conflict in various regions in Nigeria. The paper recommends a review or enactment of new national firearms laws, ensure enforcement by the security agencies, and strict punishment for illicit firearms trade, manufacturing, and trafficking in Nigeria. The government should provide security surveillance equipment, training, and good remuneration to the security outfits.

Keywords: Small Arms, Proliferation, National Security, Control Mechanisms

279 LEGAL AND SOCIO-ECONOMIC ISSUES CONCERNING COMMERCIALIZATION OF HUMAN ORGAN: A CASE STUDY OF NIGERIA AND UGANDA

¹Adesoji Kolawole Adebayo, ²Paul Atagamen

Aidonojie, ³Oluwaseye Oluwayomi Ikubanni, ²Godswill Owoche Antai and ¹Esther Chetachukwu Aidonojie

¹*School of Law and Security Studies, Babcock University*

²*School of Law, Kampala International University Kampala, Uganda*

³*Faculty of Law, Joseph Ayo Babalola University*

⁴*Nnamdi Azikiwe University, Anambra State, Nigeria*

**Corresponding author's email address:*

adebayoad@babcock.edu.ng

Abstract

As the need for human organ donations surges high globally, the illegal commercialization of human organs becomes a dominant phenomenon across the globe especially in developing nations such as Nigeria and Uganda. In Nigeria and Uganda, though human organ commercialization has legal and ethical implications, it remains a major challenge that characterizes and has maligned the health sector of these African states. It is concerning this, that this study sought to examine the legal issues and socio-economic factors concerning the commercialization of human organs in Nigeria and Uganda. The research adopted a doctrinal research methodology, data obtained through primary and secondary sources were analysed through descriptive and analytical approaches. The study found that while there are extant laws prohibiting the illegal commercialization of human organs in both Nigeria and Uganda, the menace surges high due to socio-economic factors such as poverty, illiteracy, and scarcity of organ donors among others. The research concluded that though Nigeria and Uganda have laws prohibiting the illegal commercialization of human organs, inadequate implementation of these laws and socio-economic issues remain major challenges to combating the illegal commercialization of human organs. The study therefore recommended that there is a need for adequate enforcement mechanisms for the implementation of these laws. Furthermore, the government and the global community must aid in resolving some of these socio-economic issues necessitating the illegal commercialization of human organs.

Keywords: Socio-economics, Human organ, Uganda, Nigeria

280 VIEWS FROM CONVICTED PRISONERS IN CORRECTIONAL CENTERS NIGER STATE, NIGERIA

^{*1}Usman, Isah Ndashiru A & ²Bala Muhammad Dalhatu

¹*Dept. of Communication Education/ General Studies, Federal University of Technology, Minna, Nigeria*

²*Dept. of Communication Education/ General Studies, Federal University of Technology, Minna, Nigeria*

**Corresponding author's email address:*

isabusman@futminna.edu.ng

Abstract

The act of murder challenges rational understanding, raising questions about the motivations behind such deliberate violence among individuals. Despite its complexity, murder rates continue to rise globally, posing significant threats to societal stability and indicating the health of communities. This paper explores the reasons provided by convicted murderers in prisons to assess their validity, using a theoretical framework that combines strain and social disorganization theories. Semi-structured questionnaires were administered to 615 convicted prisoners from four prisons in Niger State, Nigeria, utilizing a multi-stage sampling technique. Additionally, interviews were conducted with sixteen prison warders. Findings revealed that low income ($P = .934$) alone did not significantly explain murder at the 0.05 level; however, peer pressure was a notable factor ($p = 0.02$). The study suggests implementing special loan packages and community partnerships to alleviate economic hardships and enhance social capital, both of which are crucial in addressing the underlying causes of murder.

Keywords: Murder; Violent Crime; Prisoners; Low Income; Social Capital.

281 SMALL ARMS PROLIFERATION AND NATIONAL SECURITY: AN APPRAISAL OF NATIONAL CONTROL MECHANISMS IN NIGERIA

Bilyaminu Suleiman Muhammed and Olaniran Olusola

*¹Department of Sociology Nasarawa State University, Keffi
Nasarawa State- Nigeria*

E-mail: bilyasule@nsuk.edu.ng, bilyamins@yahoo.com

*²Institute for Peace and Conflict Resolution (IPCR) Plot 496,
Abogo Largema Street, Central Business District, Abuja*

E-mail: shonlino@yahoo.com

Abstract

Small arms proliferation is a major challenge and threat to peace and security in Nigeria. Despite, global, regional and national bodies for firearmsTM control mechanisms, there is easy availability and proliferation of these weapons by non-state actors. Conflicts, violent crimes as a result of these arms leads to loss of lives and displacement of huge number of people in Nigeria. This paper examines small arms proliferation and national control mechanisms in Nigeria. Secondary data are utilized and sourced mainly from journals, textbooks, workshop reports, government reports and international agencies reports. It is basically descriptive. It is revealed that global conflicts, armed struggles, porous borders and wars in African countries, poverty, corruption, and weak institutions contribute to small arms proliferation in Nigeria. Despite the UNPoA and ECOWAS Convention on Small Arms and Nigerian government laws such as 1959 Firearms Act, establishment of National Center for the Control of Small Arms and Light Weapons, and various internal security outfits but little results are achieved. Also, the obsolescence of the national legal firearms instruments, and lack of strict enforcement mechanisms by the security agencies results in escalation of ethnic/communal conflicts, banditry, kidnapping, insurgency and farmers/ herdersTM conflict in various regions in Nigeria. The paper recommends a review or enactment of new national firearms laws, ensure enforcement by the security agencies, and strict punishment for illicit firearms trade, manufacturing and trafficking in Nigeria. Government should provide security surveillance equipment, training, good remuneration to the security outfits.

Keywords: Small arms, Proliferation, National Security, Control Mechanisms.

Next Year's Conference Date, October 2025



KIU ACADEMIC PROGRAMMES

PROGRAMME	COURSE DURATION
MAIN CAMPUS COLLEGE OF ECONOMICS AND MANAGEMENT	
National Certificate in Business Administration	2 Years
National Certificate in Procurement and Logistics Management	2 Years
National Certificate in Secretarial and Office Management	2 Years
Diploma in Business Administration	2 Years
Diploma in Tourism and Hotel Management	2 Years
Diploma in Human Resource Management	2 Years
Diploma in Procurement & Logistics Management	2 Years
Diploma in Secretarial Studies	2 Years
Bachelor of Business Administration	3 Years
Areas of Specialisation:	
a) Finance & Banking b) Accounting & Finance c) Marketing	
Bachelor of Arts in Economics	3 Years
Bachelor of Entrepreneurship & Business Management	3 Years
Bachelor of Economics and Applied Statistics	3 Years
Bachelor of Tourism and Hotel Management	3 Years
Bachelor of Human Resource Management	3 Years
Bachelor of Procurement & Logistics Management	3 Years
Bachelor of International Business Administration	3 Years
Bachelor of Business Computing	3 Years
Postgraduate Diploma in Human Resource Management	1 Year
Postgraduate Diploma in Business Administration	1 Year
Postgraduate Diploma in Project Planning and Management	1 Year
Master of Arts in Economic Policy and Planning	2 Years
Master of Business Administration	2 Years
Areas of Specialisation:	
a) Finance & Banking b) Finance & Accounting c) Human Resource Management d) Information Technology e) International Business Management f) Marketing g) NGO Management	
h) Supplies & Management i) Management	
Master of Arts in Human Resource Management	2 Years
Master of Arts in Economics	2 Years
Master of Arts in Project Planning & Management	2 Years
PhD in Economics (by Course Work and Research)	4 Years
PhD Management Science in Business Management	3 Years
Areas of Specialisation: a) International Business b) Finance and Accounting	
COLLEGE OF HUMANITIES AND SOCIAL SCIENCES	
National Certificate in Public Administration	2 Years
National Certificate in Guidance and counselling	2 Years
National Certificate in Journalism and Media Studies	2 Years
Diploma in Mass Communication	2 Years
Diploma in Counselling and Guidance	2 Years
Diploma in Development Studies	2 Years
Diploma in Public Administration	2 Years
Diploma in International Relations and Diplomatic Studies	2 Years
Diploma in Social and Community Development	2 Years
Diploma in Social Work and Social Administration	2 Years
Bachelor of Arts in Mass Communication	3 Years
Bachelor of Development Studies	3 Years
Bachelor of Arts in Public Administration	3 Years
Bachelor of Arts in International Relations & Diplomatic Studies	3 Years
Bachelor of Counseling Psychology	3 Years
Bachelor of Social Work & Social Administration	3 Years
Bachelor of Social and Community Development	3 Years
Postgraduate Diploma in Public Administration	1 Year
Postgraduate Diploma in Development Studies	1 Year
Master of Arts in Conflict Resolution and Peace Building	2 Years
Master of Arts in Counseling Psychology	2 Years
Master of Arts in Development Studies	2 Years
Master of Arts in Human Rights and Development	2 Years
Master of Arts in Public Administration	2 Years
Master of Arts in Social Work and Social Administration	2 Years
Masters in International Relations and Diplomatic Studies	2 Years
Master of Science in Mass Communication	2 Years
PhD in Counselling Psychology	3 Years
PhD in Conflict Resolution and Peace Building	3 Years
PhD Management Science in Public Management	3 Years
PhD in Development Studies	3 Years
SCHOOL OF DIGITAL, DISTANCE AND E-LEARNING (Tuition fees is paid per trimester) i.e 3 times in a year)	
Diploma in Business Administration	2 Years
Diploma in Commerce	2 Years
Diploma in Development Studies	2 Years
Diploma in Human Resource Management	2 Years
Diploma in Supplies and Procurement Management	2 Years
Diploma in Public Administration	2 Years
Bachelor of Business Administration	4 Years
Bachelor of Development Studies	4 Years

Bachelor of Guidance and Counseling	4 Years
Bachelor of Human Resource Management	4 Years
Bachelor of Arts in Public Administration	4 Years
Bachelor of Supplies and Procurement Management	4 Years
Bachelor of Commerce	4 Years
Postgraduate Diploma in Business Administration	1 Year
Postgraduate Diploma in Public Administration	1 Year
Master in Business Administration:	2 Years

Areas of Specialisation:

a) Finance & Banking b) Finance & Accounting c) Human Resource Management d) Information Technology e) International Business f) Management g) Marketing h) NGO Management

i) Supplies & Management

Master in Educational Administration and Management	2 Years
Master of Arts in Human Rights and Development	2 Years
Master of Arts in Conflict Resolution and Peace Building	2 Years
Master of Arts in History	2 Years
Master of Arts in Public Administration	2 Years
Master of International Relations and Diplomatic Studies	2 Years

COLLEGE OF EDUCATION

Diploma in Primary Education (In-service)	2 Years
Bachelor of Arts with Education	3 Years
Bachelor of Arts with Education - Fine Art	3 Years
Bachelor of Science with Education	3 Years
Bachelor of Computer Science with Education	3 Years
Bachelor of Education in Special Needs Education (In-service)	2 Years
Bachelor of Education in Special Needs Education (Regular)	3 Years
Bachelor of Education Arts Primary (In-service)	2 Years
Bachelor of Education Science Primary (In-service)	2 Years
Bachelor of Education in Early Childhood and Primary Education (In-service)	2 Years
Bachelor of Education Arts Secondary (In-service)	2 Years
Bachelor of Education Science Secondary (In-service)	2 Years
Postgraduate Diploma in Education	1 Year
Postgraduate Diploma in Educational Management & Administration	1 Year

Master of Arts in English	2 Years
Master of Arts in Geography	2 Years
Master of Arts in History	2 Years
Master of Arts in Linguistics	2 Years
Master of Science in Biology	2 Years
Master of Education in Early Childhood	2 Years
Master of Education in Educational Administration and Management	2 Years
Master of Education in Special Needs Education	2 Years
PhD Management Science in Educational Management	3 Years

Areas of Specialisation: a) Education

Administration b) Educational Planning

HEC - Humanities (Entrepreneurship, History Religious Studies, Economics and Geography)

HEC - Physical Sciences (Physics and Mathematics)

HEC - Biological Sciences (Biology and Chemistry)

SCHOOL OF LAW

Diploma in Law	2 Years
Bachelor of Laws - Weekend	4½ Years
Bachelor of Laws (Day & Evening)	4 Years
Master of Laws in Commercial Law	2 Years
Master of Laws in Criminal Law and Criminology	2 Years
Master of Laws General	2 Years
Master of Laws in Natural Resources	2 Years
Master of Laws in Public International Law	2 Years
Master of Laws in International Economic and Trade	2 Years
Master of Laws in Banking and Financial Services	2 Years
Master of Laws in Intellectual Property	2 Years
PhD in Law	3 Years

SCHOOL OF MATHEMATICS & COMPUTING

National Certificate in Information Communication Technology	2 Years
National Certificate in Library and Information Science	2 Years
Diploma in Computer Science	2 Years
Diploma in Library and Information Science	2 Years
Diploma in Information Technology	2 Years
Bachelor of Science in Statistics	3 Years
Bachelor of Computer Science	3 Years
Bachelor of Information Technology	3 Years
Bachelor of Library and Information Science	3 Years
Bachelor of Science in Mathematics	3 Years
Postgraduate Diploma in Computer Science	1 Year
Master of Science in Information Technology	2 Years
Master of Science in Information Systems	2 Years
Master of Science in Computer Science	2 Years
Master of Science in Software Engineering	2 Years
Master of Science in Statistics	2 Years
Master of Science in Mathematics	2 Years

Areas of Specialisation:

a) Applied Mathematics b) Pure Mathematics

PhD Management Science in Information Systems	3 Years
PhD in Computer Science	3 Years
PhD in Information Technology	3 Years
PhD in Mathematics	3 Years
PhD in Applied Statistics	3 Years

PhD in Information Systems	3 Years
PhD in Library and Information Science (by research)	3 Years
PhD in Management Science (by research)	3 Years

SCHOOL OF NATURAL AND APPLIED SCIENCES

Diploma in Environmental Management	2 Years
Bachelor of Science in Environmental Management	3 Years
Bachelor of Science in Wildlife Management & Conservation Management	3 Years
Bachelor of Science in Industrial Chemistry	3 Years
Bachelor of Science in Chemistry	3 Years
Bachelor of Science in Physics	3 Years
Master of Science in Chemistry	2 Years
Master of Science in Conservation Biology & Wildlife Management	2 Years
Master of Science in Environmental Management	2 Years
Master of Science in Physics	2 Years
PhD in Environmental Science	3 Years
PhD in Physics	3 Years
PhD in Chemistry	3 Years

SCHOOL OF ENGINEERING AND APPLIED SCIENCES

Bachelor of Science in Telecommunication Engineering	Ordinary Diploma 3 Years
Bachelor of Science in Electrical Engineering	3 Years
Bachelor of Science in Mechanical Engineering	3 Years
Bachelor of Science in Civil Engineering	3 Years
Bachelor of Science in Computer Engineering	3 Years
Bachelor of Science in Telecommunication Engineering	Higher Diploma 2½ Years
Bachelor of Science in Electrical Engineering	2½ Years
Bachelor of Science in Mechanical Engineering	2½ Years
Bachelor of Science in Civil Engineering	2½ Years
Bachelor of Science in Computer Engineering	2½ Years

SCHOOL OF HEALTH SCIENCES

Bachelor of Public Health	4 Years
Master of Public Health	2 Years
PhD in Public Health (by Research)	3 Years

WESTERN CAMPUS

FACULTY OF CLINICAL MEDICINE AND DENTISTRY

Diploma in Dental Surgery	3 Years
Bachelor of Medicine and Bachelor of Surgery	5½ Years
Bachelor of Dental Surgery	5½ Years
Master of Medicine in Internal Medicine	3 Years
Master of Medicine in Psychiatry	3 Years
Master of Medicine in Surgery	3 Years
Master of Medicine in Obstetrics and Gynecology	3 Years
Master of Medicine in Paediatrics and Child Health	3 Years
Masters of Medicine in Radiology	3 Years
Master of Medicine in Orthopedic Surgery	4 Years
Master of Medicine in Ophthalmology	3 Years
Master of Medicine in Otorhinolaryngology (ENT)	3 Years
Masters of Medicine in Emergency Medicine	3 Years
Master of Medicine in Anaesthesia and Critical Care	3 Years
Masters of Medicine in Pathology	3 Years

FACULTY OF BIOMEDICAL SCIENCES

Bachelor of Science in Microbiology	3½ Years
Bachelor of Science in Physiology	3½ Years
Bachelor of Science in Anatomy	3½ Years
Bachelor of Science in Biochemistry	3½ Years
Master of Science in Microbiology	2 Years
Master of Science in Physiology	2 Years
Master of Science in Anatomy	2 Years
Master of Science in Biochemistry	2 Years
PhD in Microbiology (by Research)	3 Years
PhD in Physiology (by Research)	3 Years
PhD in Anatomy (by Research)	3 Years
PhD in Biochemistry (by Research)	3 Years

SCHOOL OF ALLIED HEALTH SCIENCES

Diploma in Clinical Medicine & Community Health	3 Years
Diploma in Medical Laboratory Technology	3 Years
Diploma in Radiography	3 Years
Diploma in Medical Radiography	3 Years
Diploma in Physiotherapy	3 Years
Bachelor of Medical Laboratory Science (Direct)	4½ Years
Bachelor of Medical Laboratory Science (Extension)	3 Years
Bachelor of Clinical Medicine and Community Health (Direct)	4½ Years
Bachelor of Clinical Medicine and Community Health (Extension)	4½ Years
Bachelor of Science in Medical Radiography and Imaging Technology	4 ½ Years
Master of Public Health	2 Years
Master of Medical Laboratory Science	2 Years
Master of Science in Medical Imaging	2 Years
PhD in Public Health (by Research)	3 Years

SCHOOL OF NURSING SCIENCES

Certificate in General Nursing	2½ Years
Certificate in Midwifery	2½ Years
Diploma in Midwifery (Extension)	1½ Years
Diploma in Nursing Sciences (Direct)	3 Years
Diploma in Nursing Sciences (Extension)	1½ Years
Bachelor of Nursing Sciences (Direct)	4 Years
Bachelor of Nursing Sciences (Extension) - Weekend	3 Years
Master of Nursing Sciences	2 Years

SCHOOL OF PHARMACY

Diploma in Pharmacy	3 Years
Bachelor of Pharmacy	4½ Years
Bachelor of Science in Pharmacology	3½ Years

Master of Science in Pharmacology	2 Years
Master of Science in Pharmaceutical Analysis & Quality Control	2 Years
Master of Pharmacy in Pharmaceutics	2 Years
PhD in Pharmacology (by Research)	3 Years
PhD in Pharmacy (by Research)	3 Years

FACULTY OF EDUCATION

Bachelor of Arts with Education	3 Years
Bachelor of Arts with Education (Fine Art)	3 Years
Bachelor of Science with Education	3 Years
Bachelor of Education in Special Needs Education (In-service)	2 Years
Bachelor of Education Arts Primary (In-service)	2 Years
Bachelor of Education Science Primary (In-service)	2 Years
Bachelor of Education Arts Secondary (In-service)	2 Years
Bachelor of Education Science Secondary (In-service)	2 Years
Bachelor of Education in Early Childhood and Primary Education (In-service)	2 Years
Bachelor of Education with Guidance and Counseling (In-service)	2 Years
Postgraduate Diploma in Education	1 Year
Postgraduate Diploma in Educational Management and Administration	1 Year
Master of Education in Educational Management and Administration	2 Years
Master of Science in Pure Mathematics	2 Years
Master of Science in Applied Mathematics	2 Years
Master of Science in Chemistry	2 Years
Master of Science in Physics	2 Years
Master of Science in Biology	2 Years
HEC - Humanities (Entrepreneurship, History Religious Studies, Economics and Geography)	1 Year
HEC - Physical Sciences (Physics and Mathematics)	1 Year
HEC - Biological Sciences (Biology and Chemistry)	1 Year

FACULTY OF BUSINESS AND MANAGEMENT

National Certificate in Business Administration	2 Years
National Certificate in Procurement and logistics Management	2 Years
National Certificate in Secretarial and Office Management	2 Years
National Certificate in Public Administration	2 Years
National certificate in Guidance and Counseling	2 Years
Diploma in Business Administration	2 Years
Diploma in Human Resource Management	2 Years
Diploma in Supplies and Procurement Management	2 Years
Diploma in Secretarial Studies	2 Years
Diploma in Mass Communication	2 Years
Diploma in Counseling and Guidance	2 Years
Diploma in Development Studies	2 Years
Diploma in Public Administration	2 Years
Diploma in International Relations and Diplomatic Studies	2 Years
Diploma in Social Work and Social Administration	2 Years
Bachelor of Business Administration	3 Years

Areas of Specialisation: a) Finance & Banking b) Accounting & Finance c) Marketing d) International Business

Bachelor of Arts in Economics	3 Years
Bachelor of Entrepreneurship & Small Business Management	3 Years
Bachelor of Economics and Applied Statistics	3 Years
Bachelor of Human Resource Management	3 Years
Bachelor of Supplies & Procurement Management	3 Years
Bachelor of International Business Administration	3 Years
Bachelor of Mass Communication	3 Years
Bachelor of Development Studies	3 Years
Bachelor of Arts in Public Administration	3 Years
Bachelor of Arts in International Relations & Diplomatic Studies	3 Years

Bachelor of Guidance and Counseling	3 Years
Bachelor of Social Work & Social Administration	3 Years
Bachelor of Social and Community Development	3 Years

Master of Arts in Economics	2 Years
Master of Business Administration	2 Years

Areas of Specialisation:

a) Finance & Banking b) Finance & Accounting
c) Human Resource Management d) Information Technology e) International Business Management f) Marketing g) NGO Management h) Supplies & Management

Master of Arts in Human Resource Management	2 Years
Master of Arts in Economics	2 Years
Master of Arts in Project Planning & Management	2 Years
PhD Management Science in Business Management	3 Years

Areas of Specialisation:

a) International Business b) Finance and Accounting
PhD in Counselling Psychology
PhD Management Science in Public Management
PhD in Development Studies

FACULTY OF SCIENCE AND TECHNOLOGY

Diploma in Computer Science	2 Years
Diploma in Information Technology	2 Years
Bachelor of Information Technology	3 Years
Bachelor of Computer Science	3 Years
Postgraduate Diploma in Computer Science	2 Years
Master of Science in Information Technology	2 Years
Master of Science in Information Systems	2 Years

Master of Computer Science	2 Years
Master of Science in Software Engineering	3 Years
PhD in Information Systems	3 Years
PhD in Library and Information Science (by research)	3 Years
PhD in Management Science - MIS (by research)	3 Years

SCHOOL OF LAW

Diploma in Law	2 Years
Bachelor of Laws	4 Years

SCHOOL OF ENGINEERING SCIENCES AND APPLIED SCIENCES

Diploma in Civil Engineering	2 Years
Diploma in Electrical Engineering	2 Years
Diploma in Mechanical Engineering	2 Years
Diploma in Telecommunication Engineering	2 Years
Diploma in Automotive Engineering	2 Years
Bachelor of Science in Biomedical Engineering	4 Years
Bachelor of Science in Telecommunication Engineering	4 Years
Bachelor of Science in Electrical Engineering	4 Years
Bachelor of Science in Mechanical Engineering	4 Years
Bachelor of Science in Civil Engineering	4 Years
Bachelor of Science in Computer Engineering	4 Years
Bachelor of Science in Manufacturing Systems	4 Years
Bachelor of Architecture	5 Years
Bachelor of Science in Petroleum Engineering	4 Years
Bachelor of Science in Surveying and Land Information Systems	4 Years
Bachelor of Science in Agricultural Engineering	4 Years
Postgraduate Diploma in Civil Engineering	1 Year

Areas of Specialisation:

- a) Construction Management b) Environmental Engineering*
- c) Water Resources Engineering d) Structural Engineering*
- e) Transportation Engineering*
- f) Geotechnical Engineering*

Postgraduate Diploma in Electrical Engineering	1 Year
Postgraduate Diploma in Mechanical Engineering	1 Year
Master of Science in Renewable Energy	2 Years

- a) Photovoltaics and Solar Thermal Energy*
- b) Bio-Energy Technology*

Master of Science in Electrical Engineering	2 Years
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Areas of Specialisation:

- a) Power Systems Engineering*
- b) Energy Systems Engineering*
- c) Renewable Energy*

Master of Science in Civil Engineering	2 Years
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Areas of Specialisation:

- a) Construction Management b) Environmental Engineering*
- c) Water Resources Engineering d) Structural Engineering*
- e) Transportation Engineering*
- f) Geotechnical Engineering*

Master of Science in Mechanical Engineering	2 Years
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Areas of Specialisation:

- a) Mechanical Engineering (General)*
- b) Industrial Engineering c) Renewable Energy*

Master of Science in Telecommunications Engineering	2 Years
Master of Science in Manufacturing Systems Engineering	2 Years
Master of Science in Biomedical Engineering	2 Years
Master of Architecture	2 Years
Master of Science in Petroleum Engineering	2 Years
Master of Science in Surveying and Land Information Systems	2 Years
Master of Science in Agricultural Engineering	2 Years
PhD in Renewable Energy	3 Years
PhD in Civil Engineering	3 Years
PhD in Mechanical Engineering	3 Years
PhD in Electrical and Electronics Engineering	3 Years
PhD in Telecommunications Engineering	3 Years

Department of Technical and Vocational Education and Training

National Certificate in Building Construction	2 Years
National Certificate in Plumbing	2 Years
National Certificate in Woodwork Technology	2 Years
National Certificate in Welding and Fabrication	2 Years
National Certificate in Automotive Mechanics	2 Years
National Certificate in Electrical Installation Systems and Maintenance	2 Years
National Certificate in Electronics Technology	2 Years
National Certificate in Fashion and Garment Design	2 Years

Kampala International University has three (3)

Intakes in; **January, April** and **August**. The deadlines for each intake are published through media (Electronic and Print) and the University Website, (www.kiu.ac.ug).