

# **International Research Conference on Qualitative Education & Sustainable Development**

## **Conference Theme**

Strategies for Sustainable Development: Multi-Disciplinary Assessment

## **Conference Objective**

The conference welcomes Multi-Disciplinary Approach in addressing broad spectrum issues and challenges in achieving sustainable development in developing, especially Africa. Discussions for sustainable development are inexhaustible. The conference consist of five sessions,

1. Finance, Business Management, Technology and Entrepreneurship
2. Education, Social Sciences, Economics & Public Sector Management
3. Environmental Sciences, Agriculture, Tourism & Rural Development
4. Engineering, Sciences & Technology, Health & Paramedical Sciences
5. International Relations, Humanities, Arts, Law, & Good Governance

## **Opportunities for the United Kingdom Higher Education Sector**

The UK Higher Education International Unit has been established to coordinate, promote and undertake activities designed to support UK Universities and partnering Institutions in a globally competitive world. Participants at the conference will be enlightened on available opportunities for exchange programme and short term scholarship courses in UK Universities.

*... We create and sustain the conditions for a world-leading higher education system.*  
<http://www.hefce.ac.uk/>

## **E-Learning Professional Training of Researchers:**

The conference will feature e-Learning Professional Research Training Workshop: "Quantitative and Qualitative Methods in Conducting Research". The training

## **Conference Date**

31st August - 1st September, 2016

## **Conference Venue**

Madibbo Adamawa University of Technology (MAUTECH)  
Yola Adamawa State - Nigeria

**E-mail:** [qualitative.edu@gmail.com](mailto:qualitative.edu@gmail.com)

**Website:** [www.internationalpolicybrief.org](http://www.internationalpolicybrief.org)

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# **International Research Conference on Qualitative Education & Sustainable Development**

## **CONFERENCE THEME**

Strategies for Sustainable Development: Multi-Disciplinary Assessment

## **CONFERENCE CONTACTS**

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**Dr Chuks J. Diji**

*Chairman, African Research Council on Sustainable Development*

*\*Department of Mechanical Engineering*

*University of Ibadan, Ibadan -Nigeria*

## **CONFERENCE GUEST**

**Professor Kyari Mohammed**

*The Vice – Chancellor*

*Madibbo Adamawa University of Technology (MAUTECH)*

**Principal officers of the University**

**Deans and Directors**

**Heads of Department**

**Professors**

**Other Academic and non academic staff**

**Post graduate students.**

## CONFERENCE PLANING

<b>Day One: Tuesday 30th August, 2016</b>		
Arrival of Guests/Conferees/Delegates		
<b>Day Two: Wednesday 31st August, 2016</b> Opening Session/ Plenary		
9:00	- 10:00am	Conference Registration
10:00	- 10:15am	Opening Prayer/ Welcome Remark by the LOC
10:15	- 10:30am	Institutional Brief/ Chairman's Opening Remark
10:30	- 12:00noon	Lead Speaker
12:00	- 1:00pm	Launch Break / Group Photograph
2:00pm	- 4:00pm	Plenary Session
4:00pm	- 5:00pm	Policy Review
<b>Day Three: Thursday 1st September, 2016</b> Plenary Sessions/Policy Briefing/Communiqué		
7:00am	- 8:00am	Breakfast
8:00am	- 10:00am	Conference Briefing
10:00am	- 1:00pm	Plenary Session
1:00pm	- 2:00pm	Launch Break
2:00pm	- 4:00pm	Plenary Session
4:00pm	- 5:00pm	Communiqué/ Closing Ceremony

# THE PATH TOWARDS WATER BUILDING!

**Prof. (Mrs.) E. F. Adebayo**  
*Chairman, LOC*



With great pleasure and excitement, I welcome you all to Modibbo Adama University of Technology (MAUTECH), Yola for the International Conference on Qualitative Education and Sustainable Development. The theme of the conference 'Strategies for sustainable development: Multidisciplinary assessment' is very relevant and timely as Nigeria and other Africa nations are striving to achieve the UN Sustainable Development Goals.

The choice of MAUTECH in the North Eastern Nigeria is significant as the zone is being confronted with post insurgency developmental activities. I therefore congratulate the International Institute of Policy Review and Development Strategies for organizing this conference.

I commend the Vice - Chancellor of MAUTECH, Professor Kyari Mohammed for his approval and provision of necessary facilities for the conference. I thank the Dean, School of Agriculture and Agricultural Technology for his unflinching support for the conference. My appreciation also goes to the members of local organizing committee for their commitment, sacrifices and untiring efforts. Last but not the least, we appreciate all the authors for their contributions and thank all other conference participants for being part of this great occasion.

Once again, I welcome you to Adamawa State, the land of beauty and dairy. Enjoy the abundant nature's gifts around and the warm hospitality of the people. I wish you a most rewarding conference.

# INTERNATIONAL INSTITUTE FOR POLICY REVIEW & DEVELOPMENT STRATEGIES

*...Quality research begins here*



**I**nternational Institute for Policy Review and Development Strategies (IIPRDS) is an accredited, leading international research Institute that provides platform for independent, collaborative and institutional based research. Research endeavors address specific policy and development challenges affecting developing economies of the world. (See website [www.internationalpolicybrief.org](http://www.internationalpolicybrief.org)).

## **Publications**

The Institute has published several International multi-disciplinary journals domiciled in reputable Universities and indexed electronically. The African Development Charter series, Economic Reviews, Standards for Writing Research are some of the major readings published by the Institute.

## **Institutional Collaborations**

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The Institute has projects arms; research and training academy. The research arm is coordinated by African Research Council on Sustainable Development (ARCSD), with project office in University of Ibadan, Nigeria, University of Ghana Business School and Kenyatta University, Nairobi. The Centre for Renewable Energy Research and Development Strategies (CRERDS) is a subsidiary of the African Research Council on Sustainable Development. CRERDS provides functional development and training in Entrepreneurship and Renewable Energy Technologies for sustainable development. The Institute training academy is known as the School of Advanced Research Study.

## **The School of Advanced Research Study (SARS)**

The School of Advanced Research Study (SARS) is the training and capacity building directorate of the Institute. SARS is an affiliate of the University of Illinois, Chicago and University of Liverpool, London. It partners with institutions to train and certify researchers on various themes in Research Methodology and Statistical Techniques. The learning outcome is improved professional skills in research, teaching and quality publications.

## **Editorial Peer Review Policy/ Publications**

The Institute has an experienced Multi-disciplinary International Professional Editorial Peer Review Board. Members are drawn from different international Universities. The board operates a blind peer reviewed system.

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The Institutional library is an institutional electronic repository established to manage, disseminate and preserve where appropriate, research materials and also provide access for purposes of advancing research studies and learning. It has a quiet area for studying, and also offers facilities to facilitate group study and collaboration. The library provides the open access to electronic resources through the Internet and offers assistance to librarians in navigating and analyzing very large amounts of information with a variety of digital tools.

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The Institute operates an Exchange of Idea Initiative (EII) with Universities, Research Organizations and Libraries to enhance wider researcher of its journals. With this initiative, Academic Journals are published in various Countries by reputable publishers and research organizations irrespective of where the conference is held. This dynamism has diversified and improved the quality of the Institute Journals, enhanced international acceptance by indexing research agencies, built confidence in conferees and enhanced their disciplinary relevance.

Welcome to IIPRDS, we lead the frontier for quality research and quality publications.  
Quality research begins here!

**Dr Bassey Anam**  
*Director, IIPRDS*



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SCS also provides consulting services in survey sampling and statistical analysis. Statistical analysis is a vital and common task for many people in many varying positions of academic or professional life. The statistical analysis you will perform on your data is a vital and key task for your work, and almost important as the statistical analysis itself are the statistical analysis tools you use. Since statistical analysis is a broad and multi faceted process, it can require you to use a broad range of tools to be successful. Since the process is so complex, using statistical analysis tools is almost vital for success, the difficulty is in picking the ones suitable for your work.

There is a broad range of statistical data analysis tools in existence, each carrying a different and very specific purpose. Picking the right statistical tool for the particular project or enterprise you are working on can be difficult, and learning how to use these tools can be time consuming and not everyone has endless time to throw away on learning such things. SCS can help you in that regard. We can provide you with the best and most sound tips on statistical tools for data analysis to make sure it is never a problem for you again. This will be of great importance for the success of your project.

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2. Assistance with research methodology based on collected data and the purpose for which it is intended.
3. Guidance for data capturing and verification
4. Advice on appropriate software for data analysis
5. Data collection (on request)
6. Data cleaning, validation and manipulation
7. Analysis of data
8. Assistance with data interpretation
9. Referral to statistical specialists when required
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13. Management consultancy
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### **SIGMA RESEARCH AND ANALYTICS**

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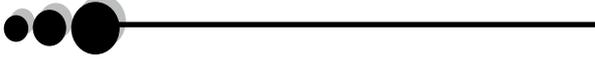
# RESEARCH TRAINING BRIEF

*Quantitative and Qualitative Methods in Conducting Research*

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## Introduction

Individuals generally accept sensory knowledge as truth because it provides a level of evidence that one can withstand or challenge. All sensory knowledge accepted as true belief has been classified as empirical or a posteriori knowledge. On the other hand, non-empirical or a priori knowledge has been widely accepted within the realm of philosophical approaches to knowledge creation because it explains or justifies knowledge independent of the sensory experience.

The fundamental principles of posteriori and priori knowledge are the theoretical underpinnings to quantitative and qualitative research methods. Each research method is designed to explore specific research questions and attempts to address the post positivist approach of challenging the traditional belief of absolute truth. This paper defines research and will present a clear statement of what constitutes quantitative and qualitative research designs and summarizes techniques used to conduct research studies for both approaches as well as the mixed methods approach.

## Research

Research is at times mistaken for gathering information, documenting facts, and rummaging for information (Leedy & Ormrod, 2001). Research is the process of collecting, analyzing, and interpreting data in order to understand a phenomenon (Leedy & Ormrod). The research process is systematic in that defining the objective, managing the data, and communicating the findings occur within established frameworks and in accordance with existing guidelines. The frameworks and guidelines provide researchers with an indication of what to include in the research, how to perform the research, and what types of inferences are probable based on the data collected.

Research originates with at least one question about one phenomenon of interest. For example, what competencies might inhibit or enhance the accession of women into senior leadership positions (Williams, 2005)? Or, what leadership factors might influence the retention choices of registered nurses? Research questions, such as the two preceding questions, help researchers to focus thoughts, manage efforts, and choose the appropriate approach, or perspective from which to make sense of each phenomenon of interest.

The three common approaches to conducting research are quantitative, qualitative, and mixed methods. The researcher anticipates the type of data needed to respond to the research question. For instance, is numerical, textural, or both numerical and textural data needed? Based on this assessment, the researcher selects one of the three aforementioned

approaches to conduct research. Researchers typically select the quantitative approach to respond to research questions requiring numerical data, the qualitative approach for research questions requiring textual data, and the mixed methods approach for research questions requiring both numerical and textual data.

### **Quantitative Research Approach**

Quantitative research emerged around 1250 A.D. and was driven by investigators with the need to quantify data. Since then quantitative research has dominated the western cultural as the research method to create meaning and new knowledge. What constitutes a quantitative research method involves a numeric or statistical approach to research design. Leedy and Ormrod (2001) alleged that quantitative research is specific in its surveying and experimentation, as it builds upon existing theories. The methodology of a quantitative research maintains the assumption of an empiricist paradigm (Creswell, 2003). The research itself is independent of the researcher. As a result, data is used to objectively measure reality. Quantitative research creates meaning through objectivity uncovered in the collected data.

Quantitative research can be used in response to relational questions of variables within the research. “Quantitative researchers seek explanations and predictions that will generate to other persons and places. The intent is to establish, confirm, or validate relationships and to develop generalizations that contribute to theory” (Leedy and Ormrod, 2001, p. 102). Quantitative research begins with a problem statement and involves the formation of a hypothesis, a literature review, and a quantitative data analysis. Creswell (2003) states, quantitative research “employ strategies of inquiry such as experimental and surveys, and collect data on predetermined instruments that yield statistical data” (p. 18). The findings from quantitative research can be predictive, explanatory, and confirming. The next section focuses on quantitative research methodology.

### **Quantitative Research Methodology**

Research methodology is defined by Leedy & Ormrod (2001) as “the general approach the researcher takes in carrying out the research project” (p. 14). Quantitative research involves the collection of data so that information can be quantified and subjected to statistical treatment in order to support or refute “alternate knowledge claims” (Creswell, 2003, p. 153). Creswell, (2002) asserts that quantitative research originated in the physical sciences, particularly in chemistry and physics. The researcher uses mathematical models as the methodology of data analysis. Three historical trends pertaining to quantitative research include research design, test and measurement procedures, and statistical analysis. Quantitative research also involves data collection that is typically numeric and the researcher tends to use mathematical models as the methodology of data analysis. Additionally, the researcher uses the inquiry methods to ensure alignment with statistical data collection methodology.

There are three broad classifications of quantitative research: descriptive experimental and causal comparative (Leedy and Ormrod, 2001). The descriptive research approach is a basic research method that examines the situation, as it exists in its current state. Descriptive research involves identification of attributes of a particular phenomenon based on an observational basis, or the exploration of correlation between two or more phenomena.

During the experimental research, the researcher investigates the treatment of an intervention into the study group and then measures the outcomes of the treatment. There are three types of exploratory approaches: pre-experimental, true experimental, and quasi-experimental (Leedy & Ormrod). The pre-experimental design involves an independent variable that does not vary or a control group that is not randomly selected. Campbell and Stanley (1963) endorsed the true experimental design, which provides a higher degree of control in the experiment and produces a higher degree of validity. The true experimental designs result in a systemic approach to quantitative data collection involving mathematical models in the analyses. Whereas, the quasi-experimental design involves non random selection of study participants. Therefore, control is limited and true experimentation is not possible. Since the variable cannot be controlled, validity may be sacrificed.

In the causal comparative research, the researcher examines how the independent variables are affected by the dependent variables and involves cause and effect relationships between the variables. The factorial design focuses on two or more categories with the independent variables as compared to the dependent variable (Vogt, 1999). The causal comparative research design provides the researcher the opportunity to examine the interaction between independent variables and their influence on dependent variables.

### **Methods to Conduct Quantitative Research**

Several research methods exist to conduct quantitative research. In descriptive research method, correlational, developmental design, observational studies, and survey research are used. These research methods may also be used in various degrees with experimental and causal comparative research.

In the correlational research method, the research examines the differences between the two characteristics of the study group. Leedy and Ormrod (2001) felt that it is crucial to observe the extent to which a researcher discovers statistical correlation between two characteristics depending on some degree of how well those characteristics have been calculated. Hence, validity and reliability are important components that affect correlation coefficients. Bold (2001) noted that the purpose of a correlational study is to establish whether two or more variables are related. Creswell (2002) defined correlation as a statistical test to establish patterns for two variables. The statistical analysis of the research question can be conducted through a progression or sequence of analyses using a standard test for correlation that produces a result called “r.” The r coefficient is reported with a decimal numeral in a process known as the Pearson Correlation Coefficient (Cooper and Schindler, 2001).

During the development design, the researcher explores how characteristics may change over time within a study group. Two types of development designs include cross-sectional and longitudinal. In the cross-sectional study, the researcher compares two different groups within the same parameters. Whereas, the longitudinal study is commonly used in child development research to better understand a phenomena of particular age groups or to study a group over a specific period of time (Leedy and Ormrod, 2001).

In the observational study method, the researcher observes a particular aspect of human behavior with as much objectivity as possible and records the data. This research method may provide an alternative to various qualitative research methods. In the survey research method, the researcher tends to capture phenomena at the moment. This method is used for sampling data from respondents that are representative of a population and uses a closed ended instrument or open-ended items. A survey research is one of the ways to gather data in the social sciences.

### **Qualitative Research Approach**

Qualitative research is a holistic approach that involves discovery. Qualitative research is also described as an unfolding model that occurs in a natural setting that enables the researcher to develop a level of detail from high involvement in the actual experiences (Creswell, 1994). One identifier of a qualitative research is the social phenomenon being investigated from the participant's viewpoint. There are different types of research designs that use qualitative research techniques to frame the research approach. As a result, the different techniques have a dramatic effect on the research strategies explored.

What constitutes qualitative research involves purposeful use for describing, explaining, and interpreting collected data. Leedy and Ormrod (2001) alleged that qualitative research is less structured in description because it formulates and builds new theories. Qualitative research can also be described as an effective model that occurs in a natural setting that enables the researcher to develop a level of detail from being highly involved in the actual experiences (Creswell, 2003).

Qualitative research is conducted within a poststructuralist paradigm. There are five areas of qualitative research: case study, ethnography study, phenomenological study, grounded theory study, and content analysis. These five areas are representative of research that is built upon inductive reasoning and associated methodologies.

Qualitative research builds its premises on inductive, rather than deductive reasoning. It is from the observational elements that pose questions that the researcher attempts to explain. The strong correlation between the observer and the data is a marked difference from quantitative research, where the researcher is strictly outside of the phenomena being investigated. There is no beginning point of truth or any established assumptions from which the researcher can begin (Leedy and Ormrod, 2001). This empirical research is data collected from the senses and is used to explain phenomena relevant to social behaviors in new and emerging theories. In addition to the distinct differences between quantitative and qualitative research designs, notable differences have also been identified in each respective research methodology. The following sections will briefly describe the qualitative research methodology.

### **Qualitative Research Methodology**

There are several different methods for conducting a qualitative research; however, Leedy and Ormrod (2001) recommend the following five: Case studies, grounded theory, ethnography, content analysis, and phenomenological. Creswell (2003) describes how these methods meet different needs. For instance, case studies and the grounded theory research

explore processes, activities, and events while ethnographic research analyses broad cultural-sharing behaviors of individuals or groups. Case studies as well as phenomenology can be used to study individuals.

### **Case Study**

Creswell (2003) define case study as “researcher explores in depth a program, an event, an activity, a process, or one or more individuals” (p. 15). Leedy and Ormrod (2001) further require a case study to have a defined time frame. The case study can be either a single case or a case bounded by time and place (Creswell, 1998). Leedy and Ormrod (2001) provide several examples from different disciplines such as a medical research studying a rare illness (event) or political science research on a presidential campaign (activity).

Leedy and Ormrod (2001) state, case studies attempt to learn “more about a little known or poorly understood situation” (p.149). Creswell (1998) suggests the structure of a case study should be the problem, the context, the issues, and the lessons learned. The data collection for a case study is extensive and draws from multiple sources such as direct or participant observations, interviews, archival records or documents, physical artifacts, and audiovisual materials. The researcher must spend time on-site interacting with the people studied. The report would include lessons learned or patterns found that connect with theories.

### **Ethnography Study**

The ethnography differs from a case study. The case study studies a person, program, or event while ethnography studies an entire group that shares a common culture (Leedy & Ormrod, 2001). Creswell (2003) defines “ethnographies, in which the researcher studies an intact cultural group in a natural setting over a prolonged period of time by collecting, primarily, observational data” (p. 14). The focus is on everyday behaviors to identify norms, beliefs, social structures, and other factors. Ethnography studies usually try to understand the changes in the group's culture over time. As a result, findings may be limited to generalization in other topics or theories.

In the ethnography methodology, the researcher must become immersed in the daily lives of the participants in order to observe their behavior then interpret the culture or social group and systems (Creswell, 1998). The initial step in the ethnography process is to gain access to a site. Second, the researcher must establish rapport with the participants and build trust. Third, the researcher starts using the big net approach by intermingling with everyone in order to identify the key informants in the culture (Leedy & Ormrod, 2001). The data is collected from participant observations and from interviewing several key informants. If the interviews are lengthy, the researcher gathers documentation by using audiotapes or videotapes media. The aspects included in ethnography are: the justification for the study, the description of the group and method of study, the evidence to support the researcher's claims, and the findings to the research question. The report must provide evidence of the group's shared culture that developed over time.

### **Grounded Theory Study**

Creswell (2003) defines grounded theory research as the “researcher attempts to derive a general, abstract theory of a process, action, or interaction grounded in the views of participants in a study” (p. 14). Leedy and Ormrod (2001) further clarifies that grounded theory research begins with data that develops into a theory. The term *grounded* provides the context of this method while the research requires that the theory must emerge from the data collected in the field rather than taken from the research literature (Leedy & Ormrod, 2001). Grounded theory has also been used primarily in the sociology discipline because this method examines people’s actions and interactions.

Grounded theory research is the process of collecting data, analyzing the data, and repeating the process, which is the format called constant comparative method. The data can be obtained from several sources such as interviewing participants or witnesses, reviewing historical videotapes or records, observations while on-site. Creswell (1998) concurs with Leedy and Ormrod’s (2001) standard format on how to analyze data in a grounded theory research that includes open coding, axial coding, selective coding, and developing a theory. Finally, a grounded theory report incorporates five aspects: describing the research question, literature review, describing the methodology, data analysis explaining the theory, and discussing the implications (Leedy & Ormrod, 2001).

### **Phenomenological Study**

The purpose of this study is “to understand an experience from the participants’ point of view” (Leedy & Ormrod, 2001, p. 157). The focus is on the participant’s perceptions of the event or situation and the study tries to answer the question of the experience. Creswell (1998) points out that the essence of this study is the search for “the central underlying meaning of the experience and emphasize the *intentionality of consciousness* where experiences contain both the outward appearance and inward consciousness based on the memory, image, and meaning” (p. 52). The difficulty of this study is that the researcher usually has some connection, experience, or stake in the situation so *bracketing* (setting aside all prejudgments) is required. The method for a phenomenological study is similar to that of grounded theory because interviews are conducted.

The method of collecting data is through lengthy (1-2 hours) interviews in order to understand and interpret a participant’s perception on the meaning of an event. Creswell (1998) suggests the procedural format is writing the research questions that explore the meaning of the experience, conducting the interviews, analyzing the data to find the *clusters of meanings*, and ending with a report that furthers the readers understanding of the essential structure of the experience. The study collects data that leads to identifying common themes in people’s perceptions of their experiences.

### **Content Analysis Study**

Leedy and Ormrod (2001) define this method as “a detailed and systematic examination of the contents of a particular body of materials for the purpose of identifying patterns, themes, or biases” (p. 155). Content analysis review *forms of human communication* including books, newspapers, and films as well as other forms in order to identify patterns,

themes, or biases. The method is designed to identify specific characteristics from the content in the human communications. The researcher is exploring verbal, visual, behavioral patterns, themes, or biases.

The procedural process for the content analysis study is designed to achieve the highest objective analysis possible and involves identifying the body of material to be studied and defining the characteristics or qualities to be examined (Leedy & Ormrod, 2001). The collection of data is a two-step process. First, the researcher must analyze the materials and put them in a frequency table as each characteristic or quality is mentioned. Second, the researcher must conduct a statistical analysis so that the results are reported in a quantitative format. The research report has five sections: the description of the materials studied, the characteristics and qualities studied, a description of the methodology, the statistical analysis showing the frequency table, and drawing conclusions about the patterns, themes, or biases found in the human communications and data collection.

### **Mixed Methods Approach**

Tashakkori and Teddlie (2003) discussed the mixed methods approach to research, which emerged in the mid-to-late 1900s (Tashakkori & Teddlie). Johnson and Onwuegbuzie (2004) hoped that the mixed methods approach to research provided researchers with an alternative to believing that the quantitative and qualitative research approaches are incompatible and, in turn, their associated methods “cannot and should not be mixed” (p. 14). With the mixed methods approach to research, researchers incorporate methods of collecting or analyzing data from the quantitative and qualitative research approaches in a single research study (Creswell, 2003; Johnson & Onwuegbuzie; Tashakkori & Teddlie).

That is, researchers collect or analyze not only numerical data, which is customary for quantitative research, but also narrative data, which is the norm for qualitative research in order to address the research question(s) defined for a particular research study. As an example, in order to collect a mixture of data, researchers might distribute a survey that contains closed-ended questions to collect the numerical, or quantitative, data and conduct an interview using open-ended questions to collect the narrative, or qualitative, data.

The mixed methods approach to research is an extension of rather than a replacement for the quantitative and qualitative approaches to research, as the latter two research approaches will continue to be useful and important (Johnson & Onwuegbuzie, 2004). The goal for researchers using the mixed methods approach to research is to draw from the strengths and minimize the weaknesses of the quantitative and qualitative research approaches (Johnson & Onwuegbuzie). Of course, the strengths and weaknesses associated with the various research approaches are not absolute but rather relative to the context and the manner in which researchers aspire to address the phenomenon under study. For example, if the researcher purports to provide in-depth insight into a phenomenon, the researcher might view selecting a small but informative sample, which is typical of qualitative research. The researcher might use inferential statistics to quantify the results, which is typical of quantitative research, as strengths worthy of combining into a single research study.

By having the ability to design research studies that combine data collection or data analysis methods from the quantitative and qualitative research approaches, researchers are now able to test and build theories. Researchers are also able to employ deductive and inductive analysis in the same research study. The mixed methods approach to research provides researchers with the ability to design a single research study that answers questions about both the complex nature of phenomenon from the participants' point of view and the relationship between measurable variables.

Proponents of the mixed methods approach to research advocate doing „what works“ within the precepts of research to investigate, to predict, to explore, to describe, to understand the phenomenon (Carr, 1994; Creswell, 2003; Johnson & Onwuegbuzie, 2004; Mingers, 2001; Sale, Lohfeld, & Brazil, 2002; Tashakkori & Teddlie, 2003). That is, in relation to the mixed methods approach to research, pragmatic assumptions govern claims about what is knowledge (Creswell; Johnson & Onwuegbuzie; Tashakkori & Teddlie, 1998). The fact that the quantitative and the qualitative research approaches are not only compatible but also complimentary underpins calls for additional research studies that use the mixed methods research approach (Carr; Johnson & Onwuegbuzie; Mingers; Sale, Lohfeld, & Brazil; Tashakkori & Teddlie).

### **Conclusion**

Quantitative and qualitative research methods investigate and explore the different claims to knowledge and both methods are designed to address a specific type of research question. While the quantitative method provides an objective measure of reality, the qualitative method allows the researcher to explore and better understand the complexity of a phenomenon. This paper presented a clear statement of what constitutes quantitative and qualitative research designs and summarized techniques used to conduct studies for both research approaches. This paper also presented statements of what constitutes the mixed methods approach when conducting research. Although each approach seeks to validate sensory knowledge as truth, neither is absolute in its form.

# Timeline for Manuscript Corrections and Journal Publication

The timeline for manuscript assessment and publication is as outlined below:

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  - a. After peer review, papers with less than 50% accuracy level will be rejected. Author(s) will be required to re-write the paper based on observations.
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# Conference Abstracts



# Information Technology and Community Engagement for Sustainable Development: the Role of Librarians

<sup>1</sup>Auwalu Dansale Yahaya & <sup>2</sup>Muhammad Kabiru Usman

<sup>1&2</sup>Librarian II, Bayero University Kano

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## Abstract

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The concept of sustainable development involves such development that meets the needs of the present without compromising the need of future generations to meet their own needs. Increase access to information and communications technology provide universal and affordable access to the required information in least developed countries, there by contributing to their sustainable development. Libraries of today are meant to ensure public Access to information and protect fundamental freedoms, in accordance with national legislation and international agreements. According to IFLA (2014), increased access to information and knowledge, underpinned by universal literacy, is an essential pillar of sustainable development. Hence, there is a need to explain some possible contribution the librarians make in attracting their users for sustainable development. The purpose of this study is to examine the librarians' application of Information Technology in engaging user community for sustainable development. Several strategies of Information Technology application to win over or attract the attention of library user community for their sustainable development were discussed. This is to strengthen the ability of the library and information sector to advocate for equitable access to information and resilient, sustainable library user communities. The study concludes that engaging library users through information technologies represent collaborative initiatives that help build sustainable communities.

**Keywords:** *Information technology, Communities and Sustainable development*



## Integrating Participatory Communication Into Agriculture: a Key to Increase Productivity and Sustainable Rural Development

<sup>1</sup>Afolabi, E. A., <sup>2</sup>Ismail, F. O., <sup>3</sup>Yerima U.U., <sup>4</sup>Dickson, M. I.,  
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### Abstract

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This paper is designed as a proponent for the adoption of participatory communication in the agricultural sector in Nigeria. Hitherto, in the area of policy and development initiatives there is no platform that incorporates all stakeholders; they need to be involved in conceiving, planning, implementing, monitoring and evaluating. Thus, it explores the concept as classified herein, the importance of participatory communication as a key to sustainable rural development. Underscore the indicators associated with these terms as related to increase productivity and bring about sustainable rural development in Nigeria. In this vein, there is the need to engage the populace, particularly women in the area of Agro-Business on how they can earn a source of livelihood and contribute towards increase productivity and sustainable development. Though, the full participation of women is not guarantee in some communities where farming is considered an occupation for men, and livestock rearing not considered as farming is an occupation for women. While, both practices are classify as farming in agriculture, and these understanding has brought huge setback to achieving sustainable rural development. In the light of these, it is imperative to engage the populace whether small or large scale farmers in decision making and not limited to the farm. This view is in consonant with the purpose of this paper; to deepening the use of participatory approaches in agriculture. The methodology and materials for data gathering and analysis are based on the use of related literatures. The study was premised on Development Theories, and suggests key ways to bring about sustainable rural development as purport.

**Keywords:** *Agriculture, Sustainability, Participatory Communication,  
Productivity and Rural Development*

## Media and Good Governance: the Polity and Agenda for Sustainable Development

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### Abstract

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This study takes seriously the proposition of media role and good governance perspective, its impact on populace for self-desire; political implementations and management of resources. Nigeria for example, is well endowed with both human and natural resources like other developing nations. More so, it situates the emergence of a well-defined polity and agenda with economic and security [policies] strategies as the driving frame to achieve sustainable development and the conceptual process. And, underscore the major role of the media as a watchdog, projecting of human rights and rule of law, and the promotion of national agenda for sustainable solution and development. As well look at governance in its dynamism as it related to the theme of the study; “Governance” is as old as human history, it is dynamic and two-ways that seek to involve all members of the civil society in thinking, and using participatory methodologies in the effective running of the state. The methodology and materials for data gathering and analysis are based on the use of related literatures. The study was premised on Development and Agenda Setting Theories, and to articulate a way forward on how media role can propel good governance to achieve a higher impact on the public for the effective and realization of self-desire and sustainable development year among developing nations.

**Keywords:** *Governance, Participatory, Media, Sustainable, and Agenda*



## Insecurity of the School Environment Detriment to Inclusive Education of Physically Impaired Children in Regular Primary School in Potiskum-Yobe

**Hassan Auta Miringa**

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### Abstract

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This research was set out to investigate the insecurity of the school environment as detriment to inclusive education of physically impaired children in regular primary schools in potiskum town yobe state. Thus, to what extent does in security of the school environment exclude physically impaired children's education in our regular primary schools? However, " is there significant relationship between insecurity of the school environment and inclusive education of physically impaired children in our regular primary schools? Survey design was used, a total of 300 respondents from both private and public primary schools. The major instrument used for data collection was questionnaire, with was proofread and validated by expert colleges, simple percentage statistic been used to analyse data. The findings revealed that, majority of regular primary school are not physically conducive and insecure for inclusive education. Finally, suggestions were made.

**Keywords:** *Insecurity, Environment detriment and Education*



## Diagonally Implicit Super Class of Block Backward Differentiation Formula with Off-Step Points for Solving Stiff Initial Value Problems

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Umaru Musa Yar'adua University Katsina

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### Abstract

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In this paper, 2-point diagonally implicit super class of block backward differentiation formula block with two off-step points (2ODISBBDF) for solving stiff IVPs is formulated. The method approximates two solutions with two off-step points simultaneously at each iteration. By varying a parameter  $p \in (-1, 1)$  in the formula, different sets of formulae can be generated. A specific choice of  $p = -\frac{3}{4}$  is made and it was shown that the method is both zero and A-stable. To validate the method, some problems known to be stiff were solved and the results obtained are compared with the existing 2-point block backward differentiation formula with off-step points (2OBBDF) in terms of maximum error and computation time. In all the computation carried out, the numerical results show that the new method outperformed the existing 2-point block backward differentiation formula method with off-step points in terms of accuracy.

**Keywords:** *Diagonally implicit, Block backward and Differentiation formula*



## Utilization of Machines, Equipment, Tools and Consumable Materials as Workshop Facilities in Adamawa State Technical Colleges, Nigeria

<sup>1</sup>Yayirus, Bitrus, <sup>2</sup>Ibrahim, Yerima Gwalem, <sup>3</sup>Shittu Adamu, Ngalburgi & <sup>4</sup>Hyalaba, Godwin Zira

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### Abstract

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The study was carried out to investigate the utilization of machines, equipment/tools, and consumable materials as workshop facilities in Adamawa state technical colleges. A Survey Research design was used for the study. The population of the study comprised all technical teachers in the three technical colleges in Adamawa state situated at Mubi, Yola and Numan. A Questionnaire structured in three sections was used to collect data from the technical teachers. Overall mean and analysis of variance (ANOVA) was used to analyse the data collected and the three hypotheses formulated were tested at .05 level of significance. The findings of the study revealed that machines were grossly underutilized, most equipment/tools are utilized and consumable materials were also utilized. The ANOVA test on the three hypotheses revealed that significant difference did not exist in the response on the utilization of machines, Equipment/Tools and consumable materials in the three state Technical colleges. Among the suggestions proffered, included encouraging the utilization of machines, Equipment/tools and consumable materials by the state Government through the provision of Electricity, water and state ministry of education to constantly organise seminars/workshops for technical teachers on modern ways of utilization of workshop facilities. An organizing trade competition amongst the three technical colleges to encourage mastery of skills thereby encouraging utilization of workshop facilities

**Keywords:** *Utilization, Workshop, Facilities, Technical Colleges*



## Yield Characteristics of Nerica - 3 (O.Sativa × O.Glaberrima) as Affected by Cowdung and Nitrogen Rates in Mubi, Adamawa State Nigeria

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<sup>2</sup>Department of Crop Production and Horticulture, MAUTECH Yola

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### Abstract

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Field trials were conducted at the Teaching and Research Farm of the Department of Agricultural Technology, Federal Polytechnic, Mubi, Adamawa State Nigeria, during cropping seasons of 2011 and 2012. The design of the experiments in both seasons were split-plot in a Randomized Complete Block Design (RCBD) in which cowdung (0, 1, 2 and 3 t/ha) constitute the main plot and subplots as four (4) levels of nitrogen (0, 60, 120 and 180 kg N/ha) in three replications. Data were collected on soils of the experimental site, number of spikes per plot, number of spikelets per spike, number of seeds per plant, weight of seeds per plant, 1000-grain weight and total grain yield per plant and in kg/ha. Data collected were subject to analysis of variance (ANOVA) and means were separated using Duncan's Multiple range Test (DMRT) at 5% level of significant. The results showed that in 2011 and 2012, the soils were sandy loam. All the characters measured in both seasons were higher from application of nitrogen at the rate of 120 kg N/ha compared to other treatments. Non application of nitrogen (0 kg N/ha) resulted in decrease in all the characters considered. Application of cowdung at higher rate (3 t/ha) resulted in more robust of all the characters measured. Across the years, the interaction between application at 120 kg N/ha and 0 t/ha gave the highest total grain yield in kg/ha (5,139 kg/ha). The interaction between application at 0 kg N/ha and 0 t/ha resulted in lowest yield (1,169 kg/ha). It could be concluded that NERICA-3 rice could be produced in Mubi with yields above Nigerian average of 2000 kg/ha. From the findings, application of nitrogen and cowdung at the rate of 120 kg N/ha and 0 t/ha appeared to be suitable for NERICA-3 in Mubi for optimum yield.

**Keywords:** NERICA, Cowdung, Nitrogen, Yield, Fertilizer

## Changing Consumer Buying Behaviour to Favour Made in Nigeria Goods: an Issue for Sustainable Development

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### Abstract

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Today, consumers are becoming hard to please. They are smarter, more price conscious, more demanding, less forgiving and they are approached by many more competitors with equal or better offers. The closure of many manufacturing companies in Nigeria is obviously traceable to low patronage of locally made goods. As a result of this, the study identified some perceptual variable affecting the buyers behaviour such as product quality, product package and price; and how they are influenced by the attitude of consumers. Data were collected from 119 respondents in the states capital of Kaduna, Nasarawa, Plateau and Abuja the Federal Capital Territory of Nigeria. The analysis of the data is conducted through the use of statistical package for the social science (SPSS) version 20.0. Thus, the hypotheses testing showed that there is positive and significant relationship between purchase decision and other variables such as product quality, and product package. It was discovered that, the increase in these variables lead to increase in consumer purchase decision. The relationship between the study price and consumer purchase decision was found to be negative. The decrease in this study price leads to increase in consumer purchaser decision. It is recommended that a well organized campaign should be carried out to convince the public about the quality of locally made goods. Efforts should be made to minimize or ban importation of some foreign goods so as to reduce emphasis on consumers' longing for them, and local manufacturers should improve on the quality of their products by using quality raw materials and modern techniques so as to reduce price.

**Keywords:** *Consumer, Behaviour, Purchase, Price, Quality, Products, Package*

## Tourism and Open Market Development as a Strategy for Rural Development in Owerri

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### Abstract

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In recent times, tourism has become vital to the growth and sustainability of world economics. However, in Nigeria and Imo State in particular have one or more tourism resources. A major tourism activities occur at the local level, this paper work examined the market as a proponent to the growth of tourism with its potential in rural development. The research methods used included initial related literature, interview and structured questionnaires administered on the local government officials, market unions, government ministries and independent bodies. The result revealed that local market has great potential in the provision employment, revenue, infrastructure, regional integration and general rural rehabilitation. This is made manifest in the availability of various classes of local markets that are spatially distributed amongst various communities in the state and in the study area. The paper also looked at various strategies towards ensuring a sustainable market tourism development in Owerri.

**Keywords:** *Market, Rural rehabilitation, Sustainability, Tourism resources, Regional integration.*



## The Constraints & Prospects of Qualified Professional Technology Teachers Selection, Recruitment and Retention in North-East Federal Polytechnics, Nigeria

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<sup>5</sup>*Department of Food Science and Technology Federal Polytechnic Mubi, Adamawa State*

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### Abstract

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The study was focused on the constraints and prospects of Qualified Professional Technology Teachers Selection, Recruitment and Retention in North-East Federal Polytechnics Nigeria. Specifically to determine the extent to which Job description and Job specification was used. 7 research questions were used and structured questionnaire for data collection. Proportionate stratified random sampling technique was adopted and sample of 80 respondents drawn from the study population of 200 respondents, obtained from 4 Federal Polytechnics in North-Eastern Nigeria was used for the study. Descriptive survey design was employed while mean and standard deviation was used for the data analysis. The findings identified some factors such as the use of informal sources of recruitment, increasing pressure for employment, bribery, corruption, injustice and Underutilization of job description, job specification in recruitment process. Conclusively, the Federal Polytechnics in North-Eastern Nigeria are faced with the problems of poor students' performance, Boko Haram issue that had affected their academic activities, issues of differences in tribe, religion, injustice and sectionalism had compounded to the institutions inabilities to conduct free, fair and just selection, recruitment and retention exercises for their personnel. Based on these findings, the study recommended that the Federal Polytechnics in North-Eastern Nigeria should strive to resist employment pressure from employees, de-emphasize subjective and informal sources of recruitment and emphasize sources such as professional organizations and unions, Utilization of job description and job specification properly when embarking on selection, recruitment and retention exercises among others. Proposal for further research on the re-examination of the reliability and validity of employee recruitment instrument in the polytechnics was suggested by the researchers.

**Keywords:** *Teachers, Selection, Recruitment, Constraints, Prospects*

## Its Infrastructural Change: Effect on Organizational Performance (Case Study of Kaduna Refinery and Petrochemical Company)

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University of Technology, Yola, Adamawa State*

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### Abstract

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Due to the importance of the daily operations and strategic positioning of the modern business enterprise, information technology has become the backbone and ever more important part of the structure of most organizations. Therefore, the importance of Information Technology (IT) infrastructure is recognized more and more within companies and corporations. The research was made to looking into how IT infrastructural changes affect the performance of an organization, as this (infrastructure) is the foundation upon which IT services of an organization operate. The researched looked at the some of the existing standards used in change management which includes COBIT, Prince2 and ITIL. This research used a case study of Kaduna Refinery and petrochemical company to analyse the effect of IT infrastructural change and methodology adopted for this study was a quantitative approach, where 60 questionnaires were distributed and 80% responded. Some of the findings of the research were that IT infrastructural change was on using normal change procedure in the organization which sometimes results in poor service provision and misuse of resources. IT staffs are sometimes not involved in the change process and can result in poor staff performance. Since infrastructure is vital in IT service provision and organization processes depends on it, it is therefore important to have standard procedure for such change so as to reduce risk and cost involved in such change. It is recommended that IT staffs and stakeholders should be fully involve it IT changes and staff training on change management process should be done on regular bases. In conclusion IT infrastructural change should be carefully analysed by IT staff and stakeholders so as to reduce the risk involved in such change. Organizations should adopt used of best practise procedures for change processes and also provide staff training.

**Keywords:** *Infrastructure, Information Technology (IT) and Change*

## Environment Degradation and Abuse and its Attendant Effects in Developing Countries; the Nigerian Experience

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### Abstract

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The level of orientation and ignorance being evidenced in developing countries is one that call for serious concern or worry. The environment especially in the urban areas due to the heterogeneous population is a mess. People refuse to dispose off bins at the proper or designated places and this result in drainage blockage or blockages in event of heavy downpour, one other ugly side is that certain diseases are spread or contacted due to filthy environments and the people care little about that. Evidently most diseases and sickness witnessed in developing countries are due to their drinking of dirty or unclean water as a result of erosions carrying or depositing on improperly disposed rubbish or bins into the rivers and lakes among others. This research adopted series of data collation techniques in its efforts to have a very presentable work. The research concluded with the researcher calling on the responsible agencies to take up their duties for this will make meaningful contribution in this direction

**Keywords:** *Environment degradation, and Developing countries*



## Assessment of Internally Displaced Persons Needs in Maiduguri Metropolis, Borno State, Nigeria: Implications for Counselling

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<sup>1,2&3</sup>Department of Education, University of Maiduguri, Nigeria

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### Abstract

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The study assessed internally displaced persons needs in IDP's camps, Maiduguri Metropolis, Borno State, Nigeria. Five objectives were stated and five research questions were answered. Descriptive survey design was used for the study. The target population for the study comprised all the 66,466 IDP's across the ten internally displaced persons camps in Maiduguri Metropolis, however, 528 IDP's were drawn through simple random sampling technique as the sample for the study. Need Assessment and Counselling Implication of Internally Displaced Persons in Maiduguri Metropolis (NACIIDPMM) developed by the researchers was used for data collection, pilot study was conducted to determine the reliability of the NACIIDPMM, the data collected was computed using a test-retest method and reliability coefficient of .81 was found which shows that the instrument was reliable for the purpose of this study. The descriptive statistics: percentages and frequency, and cross tabulation and chi-square were used to answered research questions one to five. The findings of the study showed that there was sufficient and comfortable accommodation in IDP's camps, IDP's eat daily but not to their satisfaction, and there were insufficient health personnel and health facilities in the IDP's camps. It was further discovered that there are provisions for formal education in the IDP's camps, but no adequate supply of man power and educational materials have been provided and there are provisions for the security to the IDP's but not adequate. Based on the findings of the study, it was concluded that except for accommodation, the basic needs of IDP's are not adequately met. Based on the findings of the study, it was recommended that there is need for authorities involve in the management of IDP's to review their welfare strategies so as to reach the average need of IDP's.

**Keywords:** *Assessment, Internally displaced persons, Needs, and Counselling*



## Innovation as a Critical Success Factor: a Case Study about the Partnership among Polytechnics with Industry in Nigeria

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### Abstract

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Interaction between polytechnics and companies is common in Countries considered to be developed and innovative. In Nigeria, this strategy is not widely used, although some relevant actions have produced good results in the agricultural sector. The Nigeria Innovation mandate, which is considered a milestone, created the Technology Innovation Centers (TICs) in universities, Polytechnics, and is seen by the Ministry of Science and Technology in Nigeria as having great strategic promise within the area of engineering and medicine. In this regard, this article seeks to present the findings of an exploratory research project investigating the participation of Nigeria polytechnics in the formation of strategic partnerships focused on the development of machines and equipment, after the advent of the Nigeria Innovation mandate. An exploratory study was used as an instrument of methodological support, whose results allowed the authors to identify some significant reflections structured in the polytechnics-technology industry-government approach.

**Keywords:** *Technology, Industry, Innovation, Polytechnic-industry and Partnership*



## Assessment of Effect of Solid Waste Disposal on Real Property Value in Potiskum, Yobe State

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Federal Polytechnic, P.M.B. 1006, Damaturu, Yobe State*

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### Abstract

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**S**olid waste disposal in dump site provided within the urban centers was the proper inherent solution for solid waste disposal. But in today's most urban centers proper disposition of solid waste has become difficult, instead our drainages, house frontage, and every open place that distanced a bit from the sight of people become the refuse dumps. However, this effect exerted as a result of these activities and further manifests in decreased value of land and landed properties both in profitable and non-profitable values, this therefore is the examining aim of this research and then it presents steps which if followed would curtail in a long way the diversified effect, for better.

**Keywords:** *Solid waste, Effect assessment and Real property value.*



## Effect of Claim Settlement on the Profitability of Insurance Firms in Nigeria, 2003 - 2014 (Emphasis on General Insurance Business)

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<sup>2</sup>Department of Insurance and Risk Management  
Enugu State University of Science and Technology - ESUT

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### Abstract

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This study examined the effect of claim settlement on the profitability of insurance firms in Nigeria. The objective of this study is to determine the causal link between claim settlement and profitability. Multiple regression model, was applied, while statistical packages for the social science (SPSS V.20) was employed in the data analyses. The investigation showed that claim is a significant negative factor in determining the profit of insurance firms. The implication of the result findings is that claims significantly and negatively influences profit, however it did not entirely diminish profit. This is because the influence of claim was within manageable proportion, as claims explained only 3% of changes in profit compared to premium that accounted for about 68% of the profit. This study concludes that claims settlement has a significant negative impact on the profit of insurance firms in Nigeria. It is therefore recommended that insurance companies begin to look towards minimising claims by inventing some proactive measures that would reduce claims. Such efforts could come in form of education, enlightenment, training and provision of preventive equipments.

**Keywords:** *Claim settlement, profitability and Insurance firms*



## Effect of Risk Exposures to Credit and Asset on the Insurance Industry: a Critique

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Enugu State University of Science and Technology - ESUT

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### Abstract

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The title of the study is “Effect of Risk Exposures to Credit and Asset on the Insurance Industry: A Critique.” The study's objectives are to critically examine the effect of credit and asset risk exposures on the insurance industry and to proffer recommendations that will tremendously reduce the effect of the risk exposures on the industry. To achieve these objectives, the methodology of using an apposite theoretical framework couched in the modern theory of financial intermediation was adopted. This was done against the backdrop of the review of relevant empirical and theoretical literature. The study found that the effect of the exposures to credit and asset risks on the insurance industry was problematic because of losses on stocks, bond market and reduced demand for insurance products. It also found that the exposures had the prospects of strengthening risk management and enforcing transparency, market and discipline in the industry. These findings imply that for the industry the exposures to the risks are both a setback and an encouragement to shape up. They also implied that risk governance framework needs to be put in place to mitigate exposures and prevent industrial collapse. In conclusion, the study noted that the effect of the exposures to credit and asset risks on the industry was both negative and positive, highlighting certain problems and prospects of the industry. The study proffered pragmatic recommendations. It urged the managers of the insurance companies to endeavour to buy shares or stocks of companies that are not only stable financially, but are also well-managed and ethical. Furthermore, it urged the regulatory authorities like the NAICOM in Nigeria or Solvency II in EU to ensure the strengthening of risk management practices and/or risk governance practices in the industry.

**Keywords:** *Risk Exposures, Asset, Insurance and Industry*



## Analysis of Projects Life Cycle on Investments in Nigeria

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### Abstract

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This study emphasizes on analysis of project cycle on investment. Analysis was done on how project foundation will be laid to achieve the maximum objectives. From the study, it was discovered that project cycle play a vital role on investments, therefore lead to achievement of set objectives. The author also discovered the challenges facing investors such as risk exposure which conclusion was drawn that any business organizations or establishments that wants to survive should have risk management department to look after their risk exposures and make all necessary provisions for tackling them and that stages of projects cycle should be well executed and implement to enhance economy development of the economy. Based on the study, the recommendations were made that: government should once in a while organize seminars to orientate investors on the investment procedures; that projects should be well planned and laid good foundation before embarking on it; that contingency fund should be opened by investors for management of their risk.

**Keywords:** *Investments, Projects cycle, Risk analysis, Life cycle and Investment decision.*



## Risk Minimization in Portfolio Investment using Decision Criterion Models

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Federal Polytechnic Nekede, Owerri – Imo State

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### Abstract

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This study focuses on risks minimization portfolio investment using decision criterion model. Risk is inevitable on our daily activities. It was found that since risk cannot be easily avoided, because if one is trying to escape from a risk, he is also exposing himself to another risk. That is to say that risk is unpredictable. But some strategies are used in reducing the impact of risk exposed to individual, business men and organizations. From the above, it was because of risk handling were outlined to help the growth of business organizations like portfolio diversification of fund. The conclusion were drawn that risk is inevitable, that there are various ways of managing risk and if risks are well handled that are exposed a business organization are not properly handled it will lead into serious threats and financial setback. And made the following recommendations: that business organization should adopt various strategies to use in handling the risk exposed to them, that organizations should set the contingency fund for risk management and that there should be seminars and orientations on various ways of risk management from time to time in any organization whether profit or non-profit making.

**Keywords:** Risk, minimization, decision criterion, reduction, strategies, unpredictable.



## Risk Reduction Strategies in Portfolio Investment

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### Abstract

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This study focuses on risk reduction strategy in portfolio investment. Risk is inevitable in our day-by-day activities. It was found that since risk cannot be easily avoided, because if someone is running away from one risk, he is exposing himself to another risk. But since risk cannot be avoided, there are means of managing such risk such as risk identification, risk analysis and risk control. Risk can also be reduced through risk avoidance, risk reduction method, risk transfer, risk research etc. from the above, various methods of risk reduction help the growth of establishments and business organizations like portfolio diversification of fund. Conclusion was drawn that since risk cannot be easily avoided, that investors should adopt various risk management and risk reduction to boost economic growth of the country. Recommendations were made that business organizations and establishments should set a contingency fund for effective risk management reduction, that business firms and organizations should adopt various strategies of handling risk exposed to them, and there should be seminars and orientation at least annually on various ways of risk reduction and management since it is the best option to embark by investors mostly in Nigeria.

**Keywords:** *Risk, Investment, Reduction, Strategies, Risk management and prediction*



## A Spatio-Temporal Analysis of Gully Dynamics in Tropical Savanna Landscape of Northeastern Nigeria

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<sup>2</sup>Department of Hotel Management and Tourism,  
Federal University Wukari Didams Gideon

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### Abstract

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Gully formation in the Savanna Landscape of Northeastern Nigeria have dissected and reduced productivity of both arable and non-arable land. This has become a serious challenge to food production, infrastructural development and endangered human health. It is even more crucial in those areas undergoing rapid changes in land uses and could dramatically affect soil conservation. The objective of this paper is to analyse long-term (1976-2014) gully changes and identify gully initiating factors and processes in Gombe area. Aerial photos and satellite imagery were used to extract land cover data and gully candidates. Four (4) second order gully in Gombe watershed were selected based on cross sectional area criteria minimum width 1 ft<sup>2</sup> (929 cm<sup>2</sup>) and a minimum depth of 0.5m. The dominant factors of gulling are soil disturbance, vegetation degradation, demographic pressure and infrastructural development. Initiated gullies expand through processes of deepening by scouring of gully floor and widening of channels by slumping and mass failure. Spatially, gullies in the area are unevenly distributed across the landscape positions. About 80% of the gullies occur in the southeastern part of the area. Results from calculation of gully profile dimensions; length, depth, width, and cross sectional area revealed significant increase. The formation of numerous first order gullies across the landscape over the years was also observed. Gully change rates ranged between 130ha in 1975 to 480ha in 1999. By 2014, the net gully area in the entire area increased remarkably from 480ha in 1999 to 723 ha in 2014. The implication is that there is growing severity of gully erosion and hence land degradation in the watershed.

**Keywords:** *Gully Dynamics, Environmental Factors, GIS, Spatio-temporal analysis, Gombe*

## Impact of Global 2000 (NGO) in the Provision of Portable Rural Water Supply in Eradicating Guinea Worm Pandemic in Bama Local Government Area of Borno State

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### Abstract

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The thrust of the study was to ascertain the health and economic impact of the global 2000 NGO in the provision of portable water as a proactive measure in eradicating Guinea worm pandemic in Bama Local Government area of Borno state. In this light, the study adopted the survey method in generating secondary data from the Local Government primary health care unit and the Global 2000 NGO respectively. The correlated result revealed that the epidemic is on the line of decrease while the level of livelihood of the people have also appreciating over the years as a result of the effective and efficient coordination of the preventive and curative measures embarked upon by the Global 2000 NGO in ensuring safe/clean rural water supply through treatment and filtration methods. In this vein, the result further confirmed that the Global 2000 NGO has initiated community health enlightenment programme and rural economic empowerment scheme in order to eradicate rural poverty in the area. On this note, the study further suggest that more research into rural water quality and scarcity should be embarked upon in order to control future water related plague while the communities should also imbibe the culture of treating self drinking water collected particularly from open sources. Lastly, the study recommends that the Government at the three tire levels should appreciate the NGOs as private partners participating (PPP) in rural development hence should be protected and depended by law.

**Keywords:** *NGO, Rural , Water, Eradicating Guinea Worm*



## Entrepreneurship Education in Library and Information Science Schools: a Panacea for Sustainable Development in Nigeria

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<sup>1&2</sup> Bayero University Library, Kano

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### Abstract

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Entrepreneurship education is one of the most paramount in the 21st century, because of employment crisis, financial crisis, social crisis, political crisis, insurgent and others social vices in Nigeria. Entrepreneurship education is necessary for self employment, self-reliance and sustainable development and a way for alleviating poverty. Entrepreneurship education provides a framework for the development of knowledge; skills and attitude for success in business. The imbalance between LIS graduate and employment is so wide as a result there is high unemployment problems which have resulted into so many social vices in the country. It is on record that LIS education has failed to equip its graduates with the practical skills for self-reliance and productivity while in training. Hence the need for the acquisition of entrepreneurial skills and education for self-empowerment. This study unveils business opportunities for LIS graduates which can help in the reduction of unemployment and lead to sustainable national development. It further examined the need for entrepreneurship in tertiary institutions. The paper concluded by recommending that library schools evaluate their programmes and reposition them better in order to fulfill their set goals. They need to collaborate with willing and reputable industries to design and establish a well conceived curriculum and programmes in order to meet their expectations.

**Keywords:** *Entrepreneurship Education, Self-empowerment and Sustainable Development*



## The Effect of Heat Treatment on the Microstructure of Al – Mg – Si Alloy Aa6063

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Akamkpa, Cross River State*

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### Abstract

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The effect of heat treatment on the microstructure of an Al – Mg – Si Alloy AA6063 has been investigated using optical metallography. It was found out that the microstructure of the alloy is not only quench – sensitive but develops a lot of dimples as the ageing temperature increases to its peak hardness condition. Initially, when the alloy was solutionized alone there appeared no dimples, but just large grain boundaries only. However, as the temperature began to increase to about 180°C large dimples appeared. As the temperature increased to say about 190°C the dimples reduced in size. A further increase in temperature to about 200°C brought about a further reduction in size of the dimples. Nevertheless, ageing temperatures beyond 200°C showed an increase in dimple size. Therefore, there is reduction in size of the dimples as ageing temperature rises to the peak – hardness condition.

**Keywords:** *Heat treatment, Microstructure and Metallography*



## Contemporary Deposit Money Banks Activity of Availing Credit Facilities to Customers as a Form of Liability Creation

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### Abstract

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This article understudied the correlation between creations of bank facilities to liability creation simplified as where deposit money banks generate liability with particular reference to availing various facilities to their qualified customers. How deposits banks create liability is often misunderstood and in one direction of thought. Every new loan that a bank makes creates new money. This has greatly been ignored by stakeholders. Instead, management of these banks have 80% relied on outright source of deposit with various targets set for their staff. There is another dimension to that which is the creation of bank facilities. Research methodology was by ways of journal, internet, books and personal interactions. Findings showed that deposit money banks mostly concentrate on sourcing for raw deposits rather than lending out much of these deposits that are placed with them. The act of lending creates deposits. Most banks do not visualise this aspect as one of the sources of liability instead the sourcing of raw deposits directly from customers. This research work has shown that the principal way to survive is by these banks availing facilities. The reality of how money is created today differs from the description found some years back. In conclusion, whenever a bank avails a facility, it simultaneously creates a matching deposit in the borrower's bank account and when interest and facility fees are charged, they are creating new money. Meaning when banks extend facilities to their customers, they create money by crediting their customers' accounts. Recommended among others is that as banks receives deposits save, lending should be encouraged and when these facilities are repaid, interest, commission on turnover, fees will create deposits.

**Keywords:** *Banks, Facilities, Liability, Creation, Survival*

## Rebranding and Developing Nigeria: the Roles of Executives

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### Abstract

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The aim of this paper is to capture the role of the executives as Financiers, communicators, leaders, facilitators and so on in rebranding Nigeria for sustainable development. The paper relied on secondary source of data and content analysis was used in analyzing the data. The study discovered that there is synergy between executive roles and development. The study concluded that executives can play numerous roles such as the role of policy-makers, negotiators, facilitators in discharging their executive responsibilities. If the executives effectively played these roles, they will be able to combat the major ills to our development. These ills include corruption, nepotism, lack of patriotism and above all get rich quick syndrome. The study recommended that the orientation of our children should be changed since individual is the foundation of all reforms, changes and development in the society. This is because there could be no hope of putting up a healthy, lofty and strong structure when its building block is weak and defective.

**Keywords:** *Rebranding, Chief Executive, and Development.*



## Library Campaign as a Strategy for Actualizing the Sustainable Development Goals in Nigeria: the Roles of Librarians

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### Abstract

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**O**n September 25th 2015, countries adopted a set of goals to end poverty, protect the planet, and ensure prosperity for all as part of a new sustainable development agenda. Each goal has specific targets to be achieved over the next 15 years. For the goals to be reached, everyone needs to do their part: governments, the private sector, civil society and people like you. For any nation to develop, it needs to have and provide relevant, updated and adequate information on food security, democracy, health, education, gender equality etc. Obtaining a quality education is the foundation to improving people's lives and sustainable development. Major progress has been made towards increasing access to education at all levels, Libraries can provide such access to information that would enable people lead gainful lives as they are skilled at identifying, acquiring, organizing, offering for use and publicly preserving materials irrespective of the form in which it is packaged in such a way that when it is needed it can be found and put to use. The purpose of this paper was to highlight the place of libraries and the roles of librarians in the provision of information towards the attainment of the United Nation Sustainable Development Goals as it affects the provision of quality education in the world and in Nigeria in particular.

**Keywords:** *Campaign, Development, Library, Nigeria, Sustainable*



## Sustainable Functional Education as a Strategy for the Attainment of Agenda 2030 (UN): a Perspective from the African Child

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### Abstract

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In September 2015 (25-27), world leaders assembled at the UN Headquarters in New York to articulate plans to make the world a better place for mankind. A cardinal feature of the summit was the clarification of the concept of Sustainable Development. Highlights of the clarification include - the concept of needs, particularly the essential needs of the world's poor, to which overriding priority should be given; and the idea of limitations imposed by the state of technology, and social organization on the environment's ability to meet present and future needs. The summit provides an unprecedented opportunity to shift the world onto a path of inclusive, sustainable and resilient development. Sustainable development was therefore, defined as 'that development that meets the needs of the present without compromising the ability of future generations to meet their own needs'. The definition facilitated the isolation of seventeen(17) goals hitherto referred to as "the goals of Sustainable Development". The major breakthrough emanating from the above definition was the identification of the education process as a veritable instrument by which these sustainable development goals could be realized. Against such background, this paper is an attempt at keying this strategy into the African Developmental process. Its focus is the African Child. It runs in parts - the introduction, poverty and deprivations of the African Child, his environment and opportunities within this environment. The education process (curriculum) comes up next. Consequent upon its multi-disciplinary feature(topic) and approach, the theoretical perspectives are woven around three theories - Maslow's Hierarchy of Needs, the Frustration/Aggression and the Big Push. Data is obtained from secondary sources such as books, journals, newspapers, internet, etc. The Seventeen Millennium Development Goals are listed and analyzed vis-à-vis the theoretical perspectives. Lastly, there is the summary/conclusion and some policy recommendations.

**Keywords:** *Sustainable Education, Strategy, 2030: Sustainable Development and (UN) Agenda*

## The Impacts of Terrorists Insurgency on Educational Development in Africa in the 20th and 21st Centuries

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### Abstract

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Documents and statistics generated by scholars both internationally and locally abound in showing that Africa is lagging behind in the development spectrum. While some literatures are concerned on explaining why Africa is underdeveloped in the 20<sup>th</sup> and 21<sup>st</sup> Centuries others have focused on providing solutions to the problem of underdevelopment in Africa. This paper merges the two approaches to Africa's development process by interrogating the implications of terrorism and insurgency on education and consequently on human development with particular emphasis to Nigeria. The paper demonstrates the various dimensions in which terrorists and insurgency has effected educational development which further affects human development and impliedly economic development. The paper makes recommendations towards combating the ugly phenomenon (terrorist insurgency), and creating avenues that would enhance better access to education for sustainable development. The paper is theoretical and therefore sourced information from written and internet sources.

**Keywords:** *Terrorism, Insurgency, Implications, Education and Development*



## The Problems of Large Classes on English Language Education in Nigerian Tertiary Institutions: an Appraisal

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<sup>2</sup>Department of English, University of Jos, Jos

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### Abstract

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The teaching and learning of English in Nigerian tertiary institutions is beset by many constraints, which the problem of large classes is among. English is not only the medium of instruction in Nigerian schools but taught also as core subject, cognate and elective course (Adamu and Joseph, 2015:38). The basis of English studies in the Nigerian institutions of learning is strategic as an instrument of human and societal transformation. More so, as a language of education, which expresses all disciplines, it contributes in no small measure to provide students with the necessary skills to cope effectively with other courses in their various disciplines. In spite of the central role English plays in the Nigerian educational life, many problems stand on its way, retarding smooth and effective teaching and learning. Some of these constraints overshadow both the teacher and learner. This paper discusses problems of large classes on English education in the country, the effects the problems have on both teachers of English and the learners of English as well as useful recommendation as way out of the problems.

**Keywords:** *English Language Education, Nigerian Tertiary Institutions, Learners' Attitude and Teachers' Attitude*



## Traditional Methods of Soil Capability Evaluation and Growth and Yield of Cereal Sorghum (Biocolor) in Bama Local Government Area of Borno State

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### Abstract

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The study assessed the use of traditional methods in soil capability evaluation and examined the historical growth and yield of a unique cereal sorghum (Biocolor) in Bama local government area of Borno state. In line with this, the study applied both the survey method and the observation technique as instrument of research in order to draw its conclusion. Both the techniques revealed that the natives in the study area have been using the three naturally endured senses in order to evaluate and determine the capability of their soil for annual cultivation and growth of crops particularly the perennial sorghum biocolor called Masakwa in the native name. In this regards, the sense of sight, the sense of touch and the sense of smelling are use respectively. In addition to this some recommendations were given which is to enhance the practice of non irrigable sorghum farming in other similar areas in order to facilitate the boosting of food security in Nigeria.

**Keywords:** *Traditional, Soil Evaluation, Yield cereal sorghum (Masakwa)*



## Assessment of Financial Soundness Indicators as Panacea to Problems of Banking Crises in Nigeria

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<sup>3</sup>Department of Business Administration and Management,  
Federal Polytechnic Nasarawa

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### Abstract

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This study looked at financial soundness indicators (FSI) as a panacea to the problem of banking crisis in Nigeria, examined the relationship between banking crisis and regulatory capital to risk-weighted assets of banks in Nigeria. Ordinary least square analysis supported by the ANOVA test was used. It was found that regulatory capital to risk-weighted assets, liquid assets to total assets and exchange rate have negative and insignificant relationships with the banking crisis/problems in Nigeria. The following recommendations were made that the regulatory authority should go out of the normal and usual regulatory roles And look at both the endogenous and exogenous factors that affects banks Soundness, also there is the need for a better understanding of the nature and determinants of identifying non-healthy banks.

**Keywords:** *Banks, Financial Soundness, Banking Crisis*



## Unconventional Hydrocarbon Potential of the Nigerian Inland Basins: a Clue from the Duvernay Shale Gas Resource Estimation in Western Canadian Sedimentary Basin

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### Abstract

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**D**uvernay Formation which is a home for the unconventional shale gas reservoir exploitation also serves as the source rock of the Ludec-age reef of east central Alberta in the Western Canadian Sedimentary Basin. The original gas-in-place which is a summation of free and adsorbed gas-in-place was calculated here to be 17.172bcf per section within an area of 532 acre of the formation. Nigeria consist of seven sedimentary basins including four inland basins namely; the Benue Trough, the Bida Basin, the Sokoto Basin and the Southern Chad Basin. The best source rocks in Nigeria include the Awgu Formation in the Benue Trough having a TOC range from 1.5% to 3.5 in lower sections. The organic maturation value here is between 0.83—1.13%Ro and Tmax values range from 444-481°C. Patti Shales in Bida Basin are carbonaceous shales intercalated with sands and clays with average TOC for the formation being 2.1%, Ro from 0.4-0.6% and the Tmax ranging between 407-426°C. The Dukamaje Formation in Sokoto basin has a TOC range of about 0.01-10.93% and Tmax of 423-499 obtain from a shallow well drilled in Sokoto town. Fikka Shales of Borno-Chad Basin are having an average TOC greater than 1%. The Tmax values range between 427°C and 436°C, Type II kerogen. These source rocks have TOC, organic maturation and Tmax similar to those of the Duvernay Formation and if exploited for unconventional hydrocarbons, will yield large volumes of oil and gas as these have the potentials to generate more royalty and tax revenues for the Nigerian government on a long-term basis.

**Keywords:** *Unconventional, Basin, Shale Gas, Maturation and Formation*



## Evaluation of Information and Communication Technology in Departmental Registration of Students in Tertiary Institutions in Plateau State

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<sup>3</sup>Department of Banking and Finance, University of Jos

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### Abstract

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Tertiary institutions in Plateau State are gradually transiting from the analog process of records management to digital processes. Most institutions are investing enormously in ICT infrastructures, personnel and education. In spite of these humongous investments, the registration/documentation of both new and returning students in most tertiary institutions in Plateau State have largely adopted a manual process with huge piles of files and paper work. The objective of this study is to evaluate the significance of Information and Communication Technology (ICT) to the efficient handling of departmental registration/documentation in tertiary institutions within Plateau State. Particularly, the study aims at determining whether ICT has reduced paper work in departmental registration/documentation within the selected tertiary institutions. Primary data (questionnaires) were used for analyses. The questionnaires were administered to 148 level coordinators in 7 selected tertiary institutions from a total population of 10 tertiary institutions in Plateau State. The chi-square test of independence was used to test the significance of ICT on registration/documentation of students at the departmental level. Results revealed that there is a significant positive relationship between information and communication technology and efficient departmental registration/documentation of students in tertiary institutions in Plateau State. It was recommended that tertiary institutions in Plateau State should invest more on the digitization of records with a view to ensuring effective departmental registration and documentation processes.

**Keywords:** *ICT, Departmental registration, Record management, Tertiary institutions*

## The Influence of Emotional Intelligence on the Adaptive Performance of Entrepreneurs in Jos-North

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<sup>2&3</sup>*Department of Business Administration, University of Jos*

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### Abstract

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**A**daptive performance being a set of behaviours that drive entrepreneurs to adequately handle uncertainties, emergencies/crisis situations, work stress, interpersonal adaptability and cultural adaptability, was applied to the context of a polarized post-conflict commercial space – Jos-North LGA of Plateau State. The sectarian conflicts within the State created an emotional state comprised of fear, lacklustre passion for entrepreneurial actions and security consciousness that contributed to the dwindling entrepreneurial intentions within the State. The objective of the study was to examine the influence of Emotional Intelligence on the Adaptive Performance of entrepreneurs in Jos-North LGA. Primary data were collected using questionnaires issued to a sample size of 248 entrepreneurs (from an estimated population of 700). However, only 210 questionnaires were returned for analyses. A Cronbach Alpha test with coefficient 0.741 showed that the instrument was reliable, therefore, the five hypotheses formulated were tested through the use of Structural equation modelling technique. The study concluded that Emotional Intelligence does not significantly influence how Entrepreneurs handle crises situations, demonstrate interpersonal adaptability and adapt to changing cultures. However, Emotional Intelligence significantly influences how entrepreneurs handle work stress and unpredictable work situations in Jos-North LGA. The study recommends that entrepreneurs should develop high emotional intelligence with a view to developing efficiency in handling work stress and coping with unpredictable situations in business.

**Keywords:** *Adaptive Performance, Emotional Intelligence, Entrepreneurship*



## Towards Alternative Strategies for Sustainable Development in Nigeria: Issues, Challenges and Prospects

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### Abstract

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**D**evelopment is critical and essential to the sustenance and growth of any nation. A country is classified as developed when is able to provide qualitative life for her citizenry. Nigeria in the last fifty years has been battling with the problems of development in spite of huge human, material and natural resources in her possession. The paper discussed the problems affecting national development as well as strategies for achieving sustainable development in Nigeria. The paper adopted secondary data as sources of information. The paper concluded that faithful implementation of development plan, commitment on the part of the leaders and absence of corruption are required for the achievement of sustainable development in Nigeria.

**Keywords:** *Sustainable development, Issues, Challenges and Prospects*



## Strategic Human Resource Alignment and Organisations' Competitive Advantage in Selected Insurance Companies in Lagos State, Nigeria

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### Abstract

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The world has become a global village, thus organizations today operate in a global market. The inability of some organizations especially in the insurance sector to use their Human Resource Practices to strategically support their business objective and strategy in order to create competitive advantage in the highly competitive global market has made them to go out of operation. It is against this backdrop that this study investigated the composite and relative influence of Strategic Human Resource Alignment on organisations' ability to create competitive advantage, with specific reference to some selected insurance companies in Lagos State, Nigeria. Descriptive survey research method was adopted and a sample size of one hundred and fifty (150) respondents was selected using multi-stage sampling techniques. A well simplified and validated questionnaire with reliability co-efficient of 0.85 was employed as the major instrument. Three hypotheses were tested at 0.05 level of significance with the use of multiple regressions for Hypotheses 1 and 2; and Pearson Product Moment correlation for Hypotheses 3. The findings of the study showed that the two independent variables (Vertical and Horizontal Alignment) jointly predicted the organisations' ability to create competitive advantage ( $R = 0.413$ ). Specifically, the predictors contributed 16% (adjusted  $R^2 = 0.160$ ) to the variance of the dependent measure. This contribution is shown to be significant ( $F_{(2,147)} = 15.139$ ;  $P < 0.05$ ). Also, each of the independent variables separately and significantly ( $P < 0.05$ ) predicted the dependent variable, with vertical alignment having a stronger relative contribution. The Pearson's product moment correlation equally showed a significant correlation between Strategic Human Resource Alignment and Organisations' ability to create competitive advantage. Based on the findings, the study recommended among others the need for top management executive of organisations to recognize Human Resource Department as strategic partner that can contribute significantly to value creation and thus involve directly HR professionals in critical decision making and business strategy formulation processes. Also, HR practitioners need to operate as strategy-focused professionals, spending more time to diagnose organisation's strategy needs and develop practical solutions for achieving business goal and creating competitive advantage. Again, HR practitioners need to become technologically oriented, leveraging information about the work-force. By so doing, it is expected that HR practitioners would be able to play a more strategic management role.

**Keywords:** *Strategy, Human Resource Alignment, Competitive Advantage and Insurance Sector*

## Addressing the Problems of Youths' Accessibility to Government- Run Employment and Empowerment Programmes: a Panacea for Sustainable Development

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### Abstract

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This paper examines the challenges of government-run employment and empowerment strategies among the youth. It encapsulates the evolution of those policies and programmes from political independence to date with a view to weigh their impacts. It traced the position of youth as the bedrock of any society and any sustainable development can only be achieved if they are empowered through the provision of employment opportunities and education. It argued that in spite of the enormous resources sunk into such action plans to provide more access and equal opportunities the dream of the Nigerian youth in respect of employment continues to be far from being realized as the rate of unemployment continues to increase at an unprecedented rate. Youth suffer discrimination with respect to gender, rural urban dichotomy, corruption and mismanagement, lack of political will, marginalization from equitable access. It focused an attention on recent efforts at addressing the problems with particular reference to Kano State. It is the theses of this paper that no sustainable development is attainable if policy recommendations such as expansion of opportunities for empowerment and employment, reductions of poverty both among rural and urban youth, bridging the gap in educational skills, increase wide array of opportunities in the private sector, etc. It concluded that as long as more youth are further drifted into the vicious circle of poverty their standards of living will continue to deteriorate, and unless concerted efforts are made to solve such avoidable human creations the prospects for youth equitable access to employment will continue to be far from being realized vis a vis sustainable development.

**Keywords:** *Youths' accessibility, Empowerment Government and Sustainable development*

## Exploring Town and Gown Reciprocal Linkage for Sustainable Development: an Assessment of Federal University, Kashere (2011-2016)

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### Abstract

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Meaningful and sustainable development can only be actualized if the basic and essential frontier needs of any target society are addressed. In respect to Town and Gown, mutual reciprocal linkage must exist in order to achieve this success. This paper examined the synergy between Kashere (Town) and Federal University, Kashere (Gown). The study used both primary and secondary data sources. Conflict theory was adopted to explain the reciprocal linkage for sustainable development between Kashere the host community and the Federal University Kashere. Findings of this study revealed that a complimentary relationship exist between Kashere (Town) and the Federal University, Kashere (Gown). Whereas the University has benefited from the town in no small measure, in the same vein, the University has influenced tremendously on its host communities. The establishment of Federal University, Kashere in 2011, has brought about increase in human population and economic activities in Kahere and the entire Pindiga Emirate in General. Other notable changes are on the traditional occupation of the people and pressure on existing frontier infrastructures (housing accommodation, road, water and power) within the town and its environs. The study recommended amongst others, that the University Entrepreneurial Development Center organize training of school leavers in various skill acquisition programmes. Faculty of Agriculture of the University should assist famers and herders in areas of procurement of improved seedlings, fertilizers and vaccines at subsidized rates, thereby sustaining the traditional occupation of the people. The trio of Town, Gown and Nigerian Police, should collaborate to establish a joint security task force for effective community policing geared towards sustaining the existing relative peace and security within the Town and Gown communities.

**Keywords:** *Town, Gown, Reciprocal Linkage, Development*

## Effect of Harvesting Methods on the Quality and Shelf-Life of Mango (*Mangifera indica* L) Fruits

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### Abstract

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**M**echanical injury is found in most harvested mango fruits in Nigeria which usually originate during harvesting. It is a common practice to drop fruit from different height on to the ground or shake the tree during harvesting with all the attendant consequences on its shelf life. These shortcomings necessitated this research to determine the effects of harvesting method on the Shelf life of mango fruits. The experiment consisted of three harvesting methods namely: harvesting on ground, on foam and with a picker. Data were collected on percentage change in fruit diameter, fruit texture, percentage weight loss, colour changes, rate of deterioration, percentage deterioration and marketability. Data generated were subjected to analysis of variance (ANOVA). Results showed that fruits harvested on ground had shorter storage life of less than 6 days while fruits harvested with picker had longest shelf life of 18 days. And those harvested on foam lasted for 12 days. The study therefore, concludes that harvesting method had significant effect on the shelf life of mango fruit and the best harvesting method is by using picker. Consequently, the following recommendations were made: mango fruits should be harvested carefully without falling on the ground and harvesting mango fruits with picker help to increase the shelf life.

**Keywords:** *Harvesting methods, Percentage diameter and Fruit marketability*



## Intra Legislative Conflict, Good Governance and the Future of Nigeria's Democracy

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### Abstract

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Perennial Intra-legislative conflicts which came in varying magnitudes and intensities have become the hallmark of legislative relations in Nigeria's Fourth Republic. Some of these crises has degenerated into mudslinging among politicians, a Situation which further escalated by often misleading and conflating of the issues at the heart of the crisis along ethnic and geopolitical Lines. The legislatures constitute the cardinal part of the pillar of the governance Process in the democratic political systems of today's world, Nigeria inclusive. Thus, this study focuses on factors that are responsible for legislative crisis in the Nigeria's senate and the House of Representatives in the Fourth Republic. The data for the work were derived from secondary sources. The paper argues that intra legislative acrimony in Nigeria's National Assembly over the years is fueled by multiple factors which Include primordial sentiment, political patronage and godfatherism, personal interest, among others. The paper concludes by recommending for a better legislative environment that is violent free, as well as measures to be taken to make the legislature in Nigeria more active to the sustainance of the ingredients and Values of democracy and good governance.

**Keywords:** *Legislature, legislative Conflict, Democracy, Good Governance, Intra legislative relations.*



## Childbearing Mothers Awareness and Knowledge of Immunization of Children in Maiha Local Government Area of Adamawa State, Nigeria

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### Abstract

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Vaccine preventable diseases remain one of the major causes of illness and death among children in Nigeria till today. Immunization is a proven tool for controlling and eliminating such life-threatening infectious disease. Mothers play a key role in ensuring that their children are immunized. This study was carried out to ascertain the level of awareness and knowledge of childbearing mothers on immunization of children 0-5 years in Maiha Local Government Area, Adamawa State Nigeria. In order to successfully carry out the study, four research questions were raised. A self-structured questionnaire instrument with a 0.78 cronbach alpha internal consistency score, was administered to 150 respondents but 140 was returned of which 139 was found valid for analysis (92.7% return rate). Data was analyzed using simple percentage count and presented in various charts. It was found that majority of the mothers are not aware of the vaccines given to children 0-5 years and the diseases they prevent and personnnels of immunization probably due to frequent visitation. The need for a well rooted awareness campaign in the local government area on the vaccines, the diseases they prevent and the time interval within which they are given to child aged 0-5 years among others were recommended.

**Keywords:** *Awareness, Knowledge, Immunization, Children 0-5 years.*



## Revamping the Nigerian Economy through Tree Crops Research: the Place of Natural Rubber (*Hevea Brasilensis* Muell ARG)

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### Abstract

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Nigeria's dwindling economic fortunes in recent times is a reflection of the use of crude oil as the major source of financing the economy which needs to be tackled by diversifying the economic base of the country through the use of Agriculture amongst others. The Nigerian economy could be revamped using the tree crop sector research particularly natural rubber which used to ranked as the fourth most valuable agricultural export commodity in Nigeria after cocoa, groundnut and palm kernel, with 92 percent of natural rubber production exported, making rubber essentially a foreign exchange earner for the national economy and offers employment to a sizeable segment of the Nigerian farming rural population. The paper gave high lights of the problems of the rubber industry and areas requiring appropriate and revival initiative which are expected to be sustained by the three tiers of government.

**Keywords:** *Natural Rubber, Research, economic meltdown, diversification*



## Qualitative Education as a Strategy for Sustainable Development

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### Abstract

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In a globalizing world of limited resources and unlimited ingenuity, colleges and universities play a vital role in preparing students to meet the sustainability challenges. The imperatives of sustainability point not only to new course content. But also to new ways of teaching that content. As a project with relevance across discipline, sustainability presents a valuable paradigm for rethinking pedagogy. Progress across Africa to get all children in school and learning has stalled. If nothing is done to reverse current trends, there will be millions more children out of school in African 2025 than there are today. Africa needs a new paradigm shift. Education planners have to look beyond counting of the number of children sitting in classrooms and focus on learning for sustainability, quality teacher recruitment and training. Education participation rates in many African countries are low. There are acute shortages of infrastructures and facilities at all levels of education, universities suffer from overcrowding and staff being lured away to western countries by higher pay and better conditions. The paper highlights the etymology, history of education, the state of education in Africa, teaching and learning strategies for sustainable development a change of educational culture, one which develops and embodies the theory and practice of sustainability should be adopted. There should therefore be a transformative paradigm which values, sustains and realizes human potential in relating to the need to attain and sustain social economic well-being. Various Government bodies should provide material and training opportunities that teach the principles of sustainable development.

**Keywords:** *Qualitative, Education, Sustainable, Strategy, Development and Resources*

## Analysis of Farmers' Access to Agricultural Credit from Bank of Agriculture (BOA) Yola, Adamawa State, Nigeria

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### Abstract

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The study analyzed farmers' access to agricultural credit from Bank of Agriculture (BOA) in Yola, Adamawa State, Nigeria. The specific objectives were to describe the socio-economic characteristic of the respondents; determine major factors influencing farmers' access to agricultural credit; compare the total amount of credits applied for and the amount of cash disbursed to the respondents by the bank; and identify constraints faced by farmers in credit acquisitions. Primary data were collected with the aid of structured questionnaire and the bank's 2014 applicants' records served as the source of secondary data. Purposive and random sampling techniques were used to draw 120 respondents. Data obtained were analysed using descriptive and inferential statistics. The results showed that 78% of the respondents were male, married (89%), educated (85%) and with a farm holdings less than five hectares (83%). Majority of the respondents (62%) were crop and livestock producers, about 63% belong to an organization and 75% had assessed the bank's loan. The result from logit analysis revealed that Age has a negative coefficient and years of formal education, membership of cooperatives, Annual income, were directly related to credit access. The result further revealed that there was no significant difference between the amount applied for and that which the Bank gave the respondents as loan. The major problems faced by the respondents include: Complicated eligibility criteria; lack of collateral security; delay in approval and disbursement; high interest rate. Therefore, it was recommended that bank should revisit its lending policies and farmers should be encouraged to join groups.

**Keywords:** *Agriculture, Bank, Credits, Farmers, Logit*



## Impact of Population Growth on Community Development in Central Senatorial District of Cross River State

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### Abstract

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Rapidly increasing population in rural communities generates increased demand for food, shelter, clothing and other life supporting needs derived directly or indirectly from the natural environment. Insufficient arable land and food deficit in Nigeria is the result of population pressures. These issues are some of the challenges faced in Central Senatorial districts of Cross River State due to population growth. This study seeks to address the impact of population growth on community development. Two research hypotheses were stated for the study; population growth does not significantly cause insufficient arable land. Population growth does not significantly lead to food insecurity. Survey design was adopted for the study. A structured research questionnaire was developed and administered to 140 respondents selected from the study area. One-way analysis of variance (ANOVA) was used for data analysis. Findings show that population growth significantly causes insufficient arable land and food insecurity. The study recommends mechanisation among other things, as measures to improve food security in rural areas.

**Keywords:** *Population growth, Community development, arable land, food security*



## Survey of Household Resources used by House Wives to Improve Food Security and Nutrition in Bauchi State, Nigeria

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### Abstract

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Women play an important role in ensuring household food security and nutrition. This involved the emphasis on how households and societies as a whole gain and advance when women are better nourished, better educated, participate in economic activities and have a stronger voice in decision-making. The purpose of the study was to evaluate the resources women used to ensure food sufficiency and nutrition, to determine the constraints women encounter in providing adequate food for their household and to investigate how resources could be used efficiently to enhance household food security and nutrition in Bauchi state, Nigeria. Data were collected from a cross-sectional, purposive random sample where the participating communities were randomly selected from the sample area where 98 respondents filled and returned questionnaire out of 120 with respond rate of 82%. Correlation and regression model were used to respond to hypothesis of the study. Findings from the study revealed current issues and recommendations will be made base on the study objective to government for policy and practice and also to the academia for further study.

**Keywords:** *Resources, House wives, Household, Food security, Nutrition, Bauchi State, Nigeria.*



## Economics of Women in Fish Processing and Marketing in Three Different Markets: a Case Study of Girei Local Government, Adamawa State

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### Abstract

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**H**and held GPS receiver is a popular instrument among practicing Surveyors due to its portability, and low cost. It is designed for reconnaissance, low accurate positioning and navigation. However, it was observed that Handheld GPS is now being use indiscriminately for survey jobs that require higher accuracy such as Cadastral boundary surveys. This paper is about development of window based user friendly software that can be used to post-process the position data acquire by Handheld GPS with a view of improving the accuracy of the processed data. The software was designed to refine and improve the accuracy of handheld GPS data acquired simultaneously over a known (control) point and unknown point(s).The output result of a set of refined coordinates of the observed points in a text file which can be an input to most of the common Cartographic/GIS software such as AutoCAD, Civil CAD, ArcGIS, QGIS and suffer. The flexibility and efficacy of the software was validated using field observation over known points with an improvement in the region of about  $\pm 0.2m$ .

**Keywords:** *Handheld GPS, ATBUGPS Software, GPS coordinates, Control Point, and Post-processing.*



## Marketing the Tourist Potentials in Kaduna State for Socio Economy Development

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### Abstract

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This study identified the tourism potentials in Kaduna state and makes a case for the marketing and development in the state. Stratified sampling method was used to select the surveyed tourist centers among the identified tourism potentials in the state. While oral interviewed was adopted to collect data from tourists and non tourist at the visited tourist centres. The study finds that lack of interest in tourism, low disposable income on the part of tourists, and inability of people to know the tourist sites are factors limiting the tourism participation in Kaduna state. The study also identified some challenges facing the sector that include lack of accommodation, lack of awareness, inadequate water supply, lack of adequate support by both local and state government tourism centers. The impact of tourism potentials in the study area included boosting of income, employment and business. The study concludes that tourism participation do not depend wholly on the level of income. The study recommends among others proper funding of the tourist centers by the state government and support from the federal government, as well as appropriate packaging and marketing of the potentials of the tourist centres to meet international standards.

**Keywords:** *Tourism, marketing, tourism potentials and development.*



## Tourism and Rural Development

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### Abstract

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This abstract is aimed at assessing a multi-disciplinary approach for sustainable development using tourism and rural development as a stepping stone. Africa is a continent with diverse tourist attraction centers and cultural heritage such as historical cities, picturesque villages, mountain range, museums and galleries which are majorly situated in the rural region. The impact of tourism on rural development can be traced to the development of tourist attraction centers. Places such as the roads to tourist center are well constructed and development of infrastructural facilities and social amenities takes place in such area by the government, the establishment of an home of hospitality such as hotels and guest house followed by the creation of employment opportunity and many more and this in turn leads to some levels of development in such area. Tourism promotes cultural heritage and creates a positive image for a destination, thereby making it more attractive to inward investments of all kinds.

Approaches to sustainable development through tourism include; promoting cultural heritage for the future generation, creating an environmental scene that will build a long lasting mental image and impression. i.e amenity planting such as electricity, portable water supply, good road network among others and infrastructural facilities that will attract people to the area and keep people patronizing the tourist center which increases government revenue. Another strategy for sustainable development in rural regions is the expansion of departments and units in tourist attraction centers by the government for the purpose of more job opportunity slots. The issues and challenges in achieving sustainable rural development through tourism are experienced when the top managers and officials' of tourist centers refuse to restructure the administrative system by not increasing the units and departments in the tourist center. Another reason is when the government refuses to allocate fund for the rejuvenation of tourist centers and when the people of the rural area does not see the need to promote their cultural heritage. Tourism can be an important source of jobs for rural communities and it does not only offer business opportunities to local residents, but can also enhance local quality of life. Tourism can also support local culture in rural areas by encouraging the restoration of local and regional historic sites. Rural Tourism is increasingly being used as a development strategy to improve the social and economic well-being of rural areas.

**Keywords:** *Tourism, Rural development, Infrastructure*

## Adapting Community Driven Development Approach for Post-Insurgency Recovery and Reconstruction in Northeastern Nigeria

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### Abstract

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The main thrust of this paper presents strong and constructive suggestions for taking Community Driven Development Approach (CDD) to local level recovery and reconstruction in areas recently affected by insurgency and suggests ways in which this approach can be integrated into the states and nations' disaster recovery plan. Community-Driven Development involves a degree of devolution of responsibility to communities for managing their development, including the design and implementation of projects. These enable community organizations to play a broader role in the design and implementation of policies and programmes aimed at improving the livelihood of community members, particularly of the poor and marginalized people within those communities. The approach has five pillars upon which it operates; empowering communities, empowering local governments, realigning the center, improving accountability and building capacity of the communities.

In the aftermath of the about ending Boko Haram insurgency, communities in Northeastern Nigeria, haunted by six years of conflict and weak governance and further devastated by the disaster, can be empowered to take control of the reconstruction to rebuild their own houses, businesses, lives and villages. The study recommends that: Pre-existing CDD mechanisms in the region be adapted for the purposes of local level recovery and reconstruction.

**Keywords:** *Adapting, Community Driven Development Approach, Post-insurgency, Recovery, and Reconstruction.*



## Economics of Women in Fish Processing and Marketing in Three Different Markets: a Case Study of Girei Local Government, Adamawa State

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### Abstract

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This researched work is to determine the role of women in fish processing and marketing in three different markets in Girei Local Government. Data collection was through well-structured questionnaire and 90 fish marketers and processors were examined. Majority were women (91.1%) while men were (8.9%). Majority of the fish marketers were educated in Jagajaga market (53.3%) followed by Vinikilang (43.3%) and Labudo (40.0%). The return to the variable cost differs in the three markets. Financial benefit of ₦677,700 is obtained per annum from the markets. The amount of ₦1.43 was gained for every naira invested in the business in Jagajaga, ₦1.27 in Labudo, and ₦1.66 in Vinikilang. This showed that for every Naira invested in the business ₦1.43 was gained in Jagajaga, ₦1.27 in Labudo and ₦1.66 in Vinikilang markets respectively. This showed that fish processing and marketing is profitable. The sources of fish supplied to the processors and marketers in the study area are from landing sites, markets and both market and landing site. The major constraints faced by the women in fish processing and marketing were inadequate capital to start business, insufficient fish supply, updated processing facilities, good road and storage facilities.

**Keywords:** *Fish, Marketing, Processing, Women, Economic Benefit.*



## Evaluation of Information and Communication Technology (ICT) in Construction Projects for Sustainable Development in Bauchi Metropolis

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### Abstract

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Nigeria as a country is still digitally-divided in terms of access to Information and Communication Technology (ICT) infrastructures, though government as well as stakeholders at all levels are trying as much as possible to bridge the gap through different formulation of policies, establishment of commissions and other means. Scholars have concluded that the construction industries are also lagging far behind in this information driven society where modern technology are supposed to be adopted promoting the industry. Instead, Nigeria and especially Bauchi is still battling with traditional ways of doing things in the construction industry. This paper therefore seeks to evaluate opinions of various stakeholders (construction professionals) on the roles of ICT in enhancing construction projects at their domains. The study employed survey research design, carried out in Bauchi State. The population of the study composed of construction inclined lecturers in all the tertiary institutions in Bauchi State totaling 121 academic staff (Male = 100 & Female = 21). Questionnaire was used as an instrument for data collection, and it was validated by three experts; one from School of Environmental Technology, Federal Polytechnic Bauchi; second from Abubakar Tafawa Balewa University, Bauchi and a computer analyst from College of Education, Azare, Bauchi State. The reliability of the instrument yielded 0.72 using Crobach alpha test of reliability so as to measure internal consistency of the items in the questionnaire. Data obtained were analyzed using mean and standard deviations with the aid of SPSS software version 16.0. The results showed that the rate of application of ICT at the stages of construction is frequently used at pre-construction but hardly used at construction and post construction stages. The stakeholders opined that the roles of ICT in construction operations, such as: site clearing and mobilization, setting out and foundation, flooring and walling, roofing and ceiling, fenestration and fixing are less important. The results also revealed that the roles of ICT in billing and estimation, communication and delivery processes are very important. Construction professionals also agreed that the use of ICT saves time, reduces wastage, and delay. Besides, Stakeholders in the field further opined that ICT has great impact in designing and building as well as building information modelling. The paper was concluded and proffered recommendations, such as, government should provide loan for construction experts through bank of industry to enable professionals procure the necessary ICT tools that would make construction activities in Bauchi ICT-compliant among others.

**Keywords:** *Construction, design, government, ICT, and Stakeholders*





