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Manuscript Requirements:

1. Manuscript should be written in clear, concise and grammatically correct English which should include an abstract of not more than 150 words, an introduction, main body, and a list of references.
2. Manuscript should be typewritten double-spaced throughout on A4 size paper, and on one side only. Triplicate copies of the paper should be submitted.
3. The front page should contain the title of the paper, authors name and address.
4. Tables, figures, plates etc. (with the legend) should be placed in their appropriate positions in the text, and numbered consecutively in Arabic numerals.
5. The APA format of referencing should be followed e.g:
 - (i) Textbook: Adeniran, T. (2000), *Pivot Teachers Training Programme*, National Teachers Institute, Kaduna, Nigeria.
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6. Full reference should be cited at the end of the manuscript and should be arranged in an alphabetical order, with author's surname first.
7. Manuscript should be sent to the editor together with a non-refundable fee of N5,000.00 (in cash or bank draft) payable to National Conference/Seminar Committee, Hassan Usman Katsina Polytechnic, Katsina (Account Number and Bank Name to be provided on request).
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HUKJAMS

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FOREWORD

This issue of Hassan Usman Katsina Journal of Arts, Management and Social Sciences (HUKJAMS), which is a landmark of College of Administration and Management Studies (CAMS) contains a very large collection of scholarly view points and research articles. Twenty-Eight articles in all, touching different areas of education with emphasis on Arts, Management and Social Sciences were contained in this issue.

The articles are educative and informative as well. The contributors are authoritative, versed and distinguished in the respective areas they have written, and therefore, the Journal can broaden the knowledge of readers. It is hoped that, therefore, readers and researchers will find this edition interesting and willingly tap the knowledge and information contained.

I appreciate the role of TETFund for sponsoring the publication of this edition, Vol 3, No 1. I also wish to extend my sincere appreciation and gratitude to the editorial and Advisory Boards for their effort in making this issue a reality.

Dr Aminu Kallah Doro

Rector, Hassan Usman Katsina Polytechnic, Katsina

Editor in Chief

November, 2023

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REPOSITIONING CAREER SERVICE DISCIPLINE FOR EFFECTIVE SERVICE DELIVERY AT LOCAL GOVERNMENT LEVEL

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Abstract:

Every organization serving public or private interests has a corporate mission and vision. Organization is made up of people who work in groups and all the groups are expected to work towards the achievements of the common organizational goals and objectives. This means, there must be peaceful co-existence of groups and absolute respect for rules and regulations in order for the organization to achieve business effectiveness and efficiency. The paper aims at assessing the contributions of discipline to career service personnel for effective service delivery at the local government level in Katsina state. The paper adopts qualitative means of data collection, where data are sourced from journals, textbooks, newspapers and the internet. Some of the findings of the paper include the realization that leadership by practice is among the core values needed in public service; accountability and professionalism help in the improvement of service delivery at the local government level. Some of the recommendations of the paper include governments at all levels should continue to give priority to training and retraining of human resources to ensure that each personnel or employee master his or her profession and public service rules and regulations should be the centre for inner understanding of the government operations.

Keywords: Discipline, Service Delivery, Local Government.

Introduction

Every organization serving public or private interests has a corporate vision and mandate. Generally, organizations are made up of people who work in groups but all the groups are expected to work towards the achievements of the common organizational goals. This means, there must be peaceful co-existence of groups and absolute respect for rules and regulations in order for the organization to achieve business effectiveness and efficiency. This is with respect to the public service, which is the focus of this paper, its management in the public sector, which is not an end in itself but means to ensure effective and efficient public service delivery on which lie its probity, integrity and responsiveness. Public service is the administrative arm of government, an agent, organ and machinery of government in running and developmental processes of any country the world over. Hence, the effectiveness of a government is to a large extent determined by the efficiency and competence of its public service. However, in the contemporary Nigeria, the impression that emerges of the Nigerian public service is that of inefficiency, wastefulness, largely self-serving and of general moral degeneration which are all products of indiscipline. Generally speaking, there is no public service in the world without its ills. But in the case of the Nigerian public service, it is the nature, typology and dimension that are worrisome and alarming. It has impacted negatively, a great deal on governance and developmental process in the country. The desire of successive governments to stem the rising

wave of indiscipline in the public sector in Nigeria informed the mass purge of 1975 and 1984 respectively.

The problem of discipline in Nigerian public service has reached a revolutionary situation that requires drastic measures that go beyond mere or ordinary selective administrative reforms. This becomes imperative as sustainable national development will never take place in any society where the public service- the hub, engineer and harbinger of the much desired transformation is devoid of the desirable moral and ethical principles. Therefore, local government creates an appropriate and conducive environment for the people at the local level through efficient and effective service delivery. The importance of local government in a country is inestimable because it is an indispensable arm of government. As a result, the link between the qualities of service that citizens enjoy is very significant. It is noted that local government is the closest government to the people at the grassroots level, so it is expected to play significant roles in providing social services.

Definition of Concept

Discipline is derived from disciple – disciple to a philosophy, disciple to a set of principles, disciple to a set of values, disciple to an overriding purpose, to a super-ordinate goal or person who represents that goal (Covey, 2003). The BBC English Dictionary (2002) perceives discipline as the practice of making people obey rules and punishing them when they do not. It also denotes the quality of always behaving or working in a controlled way. Webster's Dictionary (2005) gives three meanings of the concept discipline. First, it is the training that corrects, moulds, strengthens, or perfects. Second, it is a control gained by enforcing obedience. The third meaning is punishment or chastisement. Megginson (2007) also offers three distinct meanings of the word discipline. According to him, discipline involves the following three things:

- i) Self discipline; ii) Orderly Behavior, and iii) The act of training and punishing.

By self discipline, it means one's efforts at self control for the purpose of adjusting oneself to certain needs and demands. This form of discipline is based on two psychological principles. First, punishment seldom or rarely produces desirable results. Secondly, a self-respecting person tends to be a better worker than the one who is not. The second concept according to him refers to discipline as the condition which must exist for any orderly behavior in an organization through efforts that build up morale and *esprit de corps* while the third concept considers discipline as a judicious process based on training and punishment. Its function is not to change bad behavior but to prevent its recurrence in future.

On the other hand, service delivery involves a clear understanding of the specific services an organization provides, and its target customers. Understanding the service characteristics enhances how their customers see the services an organization provides. According to Majekodunmi (2004) service delivery is the provision of services to a buyer in such a way the

buyer's expectations can be met or exceeded while, at the same time, the business remains viable. Effective service delivery is rendering services that correspond to the customers' desires, needs and expectations. This concept emanates from the perceived need to treat members of the public that require government services like a private-sector entrepreneur would treat his/her customers. This is against the backdrop that a major obstacle to efficient and effective delivery of government services is the attitude of public servants to members of the public who are their customers (Fagbemi in Majekodunmi, 2004).

In all emergent states, local government has become the main fundamental instrument for the acceleration and sustenance of development. Local government is widely acknowledged as a viable instrument for development and for the delivery of social services to the people. It is believed that this third tier of government is strategically placed to fulfill this condition as a result of its proximity to the rural people, which enhances its ability to easily articulate and aggregate the demands of the people (Ugwu, in Majekodunmi, 2004). As observed by Agagu (2004), the need to catalyze balanced development, maximize citizens' participation, and stimulate government responsive service delivery, necessitates the creation of the local government. The local government serves as a form of political and administrative structure facilitating decentralization, national integration, efficiency in governance, and a sense of belonging at the grassroots. The local government is a unit of administration all over the world.

From the definitions above, the following basic characteristics of local government can be identified: It is a tier of government which is subordinate to central or regional government. It involves both the administrative and political processes of governmental power. Its area of authority is delimited by the statute establishing it. It has constitutional or statutorily mandated power to perform certain legislative, administrative and judicial functions. Its council is made up of elected representatives who are responsible to the electorate in the discharge of the functions assigned to them. Within the limit of its power, it has legal autonomy to make policies, to prepare its own budget, to hire its own staff and to execute its own policies; and it has a corporate personality.

In the context of the Nigerian public service, one discovers from experience that there are two common usages of the word "Discipline" among Nigerian public servants. The first usage is a noun in such statement as "the Director accused his officer of lack of discipline. The second is as a verb. "The Director threatened to discipline his officer for insubordination". In the first usage, discipline connotes "self-control and obedience gained as a result of training the mind and body e.g. "Our Director is a man of discipline" To discipline an officer is to invoke the prescribed measures necessary for handling undesirable work behavior in the service. This is to produce obedience and self-control in erring civil servants, to deter him/her from unbecoming behaviors. Therefore, the word discipline is used interchangeably among the Nigerian civil servants to denote both the extent or degree of obedience and self-control in officers and the application of prescribed measures, which are intended to correct any social ill of some officers when necessary.

Repositioning Career Service Discipline for Effective Service Delivery at Local Government Level

Good governance at all levels of government especially at local government level; here good governance reflects the way through which the rules, norms and actions are structured, sustained, regulated and held accountable. The degree of formality depends on the internal rules of a given organization and, externally, with its business partners. As such, good governance may take many forms, driven by many different motivations and with many different results. The role of good governance in the polity of a state cannot be over emphasized. It is instructive to note that the growth and development of a state is contingent upon the manner in which the government of the state sets the platform for effective and proper discharge of authority and control. The search for good governance seems to be Nigeria's most urgent need at this time in her history. Most Nigerians believe strongly that the factor that had crippled the country's progress in virtually every field of human endeavor is poor leadership and bad governance (Nnamdi, 2009).

Transformation of public service reform in governmental institutions especially at the local government level Schacter (2000) defines public sector reform as strengthening the way that the public sector is managed. The public sector may be overextended that is attempting to do too much with too few resources, it may be poorly organized; its decision-making processes may be irrational; staff may be mismanaged; accountability may be weak; public programmes may be poorly designed and public service poorly delivered. The public sector is broadly synonymous with government. It is also important to note that this is a deliberate action to improve the effectiveness, efficiency, professionalism, representativeness and democratic character of a public service with a view to promoting better delivery of public goods and services as well as increased accountability. Such actions can include data gathering and analysis of government and nongovernmental employees, organizational restructuring, improving human resource management and training, enhancing pay and benefits while assuring sustainability under overall fiscal constraints, and strengthening measures for public participation, transparency, and combating corruption in the society (Agboola, 2016).

Furthermore, to reposition career service discipline for service delivery at the local government level there is need to revisit the core values of public service. Core values broadly describe the standards by which person and profession are characterized. Throughout the course of brainstorming and analyzing the professional experience, the paper settles on a set of five values that are most important in public service. In order to achieve success at a personal and organizational level in the public sector, these values must be practiced on a daily basis. To practice transparency in public service is to ensure citizens the availability of information which is deemed public. This should be an organizational goal, and is to be taken into account when conducting all public business" regardless of one's job title. If the goal of an organization is to serve the citizens to the best of their ability, then avoiding or failing to achieve transparency would cause significant damage to the relationship between the leaders and the people they are aiming to serve.

Secondly, accountability is to adhere to a standard of professionalism in the workplace. Additionally, it means to understand that professional activities are being funded by the citizens

of this country. As such, public employees are held responsible by citizens for upholding the mission of their organization. Organizations are pervaded either explicitly through mission statements or by particular assumptions or behaviour. West (1994) emphasizes the need for organizations to have clear vision, which encompasses their underlying values. Mission statements communicate and synchronize these shared values across the organization, thus engaging and motivating individuals. Clear and measurable team goals could be derived from the mission statement. As team members participated in setting and prioritizing goals, they better understand the task requirements and are more motivated to achieve them. Therefore, accountability is an important aspect of the functionality of any organization public or private. Essentially, it reminds individuals that while they are employed by a professional organization they will be held liable for their actions.

Each public servant is asked to adhere to a code of ethics. In order to function properly as an organization, the administrator must be held, to a high degree, of ethical standards. Specifically, ethics call for administrators to display integrity, and be mindful of laws and regulations. Furthermore, this must be accomplished in order to successfully practice and promote transparency in government. Unfortunately, the importance of ethics in government is usually shown when public officials violate laws or regulations. Because of these instances, we are constantly reminded of the importance of ethics in public service.

Professionalism is an important core value when considering the prestigious nature of our positions in the field of public service. In essence, administrators are hired to be visionaries, in addition to being stewards of public funds and information. To be professional is to understand the importance of jobs in the public sector, to have respect for selves and the organizations that one represents, and to act accordingly. Each individual is to deal with issues, whether positive or negative, in a mild and straightforward manner whenever possible. Without professionalism in public service, the overall perception of work and organizations would undoubtedly falter. Provision of professional managers and administrators at local government institutions; professional managers and administrators here consist of those employees administering the public organizations where the top management positions and even the lower management positions are held by professional people who have professional qualifications, administrative and technical skills and to the good amount of experience in managing local government affairs.

Another important aspect in which discipline can be inculcated in the minds of local government employees is through commitment and self knowledge that is the ability to trust others, the building blocks of commitment. Commitment to a unified set of team goals and values provides direction and motivation for individual members. Furthermore, commitment is increased by and increases feelings of responsibility for and participation of individual employees at work (Pearce & Ravlin 2007). Goleman (1998) emphasized that committed individuals are willing to make short term personal sacrifices, believing that they could generate a greater good. In addition, high levels of commitment enables individuals and organizations to thrive amongst challenges and pressures that may otherwise be perceived as stressful.

Finally, there are few organizations in the public service that are able to flourish without proper leadership. Practicing leadership is setting an example of professionalism for staff members and possessing the motivation to achieve organizational goals. In doing so, leaders must have the ability to recognize the talents of individuals and allow those talents to be utilized for the betterment of the organization. Admittedly, leadership can become a balancing act between becoming an active team member and taking charge of overall operations. As a leader, it is of utmost importance to stay not only connected with staff members, but also to act in a managerial role when called upon.

Challenges to Effective Service Delivery at the Local Government Level in Katsina State, Nigeria

It is an irony of fate that the military induced reforms in the Nigerian Local Government has its attendant contradictions since the military structure is essentially hierarchical, thus the operation of local government cannot be isolated from such contradictions that characterized military hegemony. Adeyemo, (2006) opines, that the Nigerian Federalism remains a formidable problem is evident in the various contradictions of military rule and the decrees they have spurned. One of the greatest challenges is that of limited capacity. Although their strength and capacity have grown steadily since independence, local governments are still not able to perform their roles and discharge their functions much as expected. Their autonomy is limited and they remain unable to manage essential functions without assistance from central government. One of the most serious problems currently militating against local government is to do with the exact status of local government under 1999 constitution of the Federal Republic of Nigeria. The problem according to Adeyeye, (2007) arises out of the various provisions in the constitution, which tend to contradict or impair one another. Similarly, some of these provisions are blatantly ambiguous, and if stretched, could easily result into operational or functional stolidity. Similarly, the continuous overbearing role being exercised by the states poses a tremendous threat to the autonomy of local government. Therefore, repositioning the service can be seen within the realm of various contradictory rules, instructions, and supervisory powers passed down to the local councils, some of which are outside the constitutional jurisdictions of the local governments. Local government authority in Nigeria, in general and Katsina State in particular lacks the requisite financial autonomy desirable and necessary for effective management of their financial resources. The much touted local government autonomy envisaged by the theory and practice of fiscal federalism in Nigeria is more or less a political gimmick. That is precisely why it is a myth rather than reality (Akindele & Olaopa, 2002).

To talk of absence of effective service delivery in local government in Katsina State is to talk of the presence of corruption in the local government system in the country. Local governments have become vineyard of corruption where council's political officers sit to share the statutory allocation from the federation account. Instead of being used for public good, the allocations are diverted to personal use. Indeed, since the advent of local government in Nigeria in the 1950s, Odion (2009), noted that the social problem of corruption has dogged it.

Conclusion

For repositioning career service discipline for effective service delivery at local government level certain values need to be put in place in the service of local government. This includes core public service rules, ethnic, transparency, professionalism, commitment and accountability at local government level.

Recommendations

- i. Governments at all levels should continue to give priority to training and retraining of human resources to ensure that each personnel or employee master his or her profession.
- ii. Public service rules and regulations should be centre for inner understanding of government's operations at all level.
- iii. Each public servant should endeavour to adhere to a code of ethics in order to function properly. Moreover, the administrator must be held, to a high degree of ethical standards. Specifically, ethics call for administrators to display integrity, and be mindful of laws and regulations.
- iv. Government should provide an enabling environment for the transformation of public service in governmental institutions. High level committee should be set headed by an expert in public management to reform public sector institution in local government. This will no doubt improve in the output in the public sector as well as promote competition among the various local governments in Katsina state.

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EMPLOYEE COMMITMENT AND ORGANIZATIONAL DEVELOPMENT: AN OVERVIEW

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Abstract

In today's competitive world, every organization is faced with new challenges regarding sustained productivity and creating committed workforce. There have been significant changes in the role of employees in today's organizational development due to changes in an increasingly complex environment. In order to address the changes in the environment, organizations should be supported by its employees that are qualified and competent as well as innovative, professional, open and flexible. Employee's are the determining resource for the success of an organization, for the achievement of any organization is inseparable from the achievement and the role of its members. Employee with a strong commitment will be more motivated and more satisfied with their job and commonly less interested in leaving their organization. The objective of this paper is to find out the role performed by employees in achieving organizational development. The methodology employed in writing the paper is secondary data. Some of the findings include affective commitment in an organization is the most common representation of employee commitment. It represents employee's emotional attachment to organizational development. Continuance commitment is another employee commitment which refers to utilitarian gain from the employment relationship, with the employee being less likely to leave the organization based on the extent to which the contribution ratio is in balance or favorable to the employee and finally, normative commitment which implies sense of belonging to the organization. It is however important to note that, employees with the high level of normative commitment, feel that they ought to remain with the organization. Some of the recommendations of the paper include increasing employees' normative commitment through increasing reward in advance such as paying college fee in advance and house loan; increasingly however employees' commitment must be valued appraised and rewarded accordingly.

Keywords: Employee commitment, Organizational Development.

Introduction

No organization in today's competitive world can perform excellently unless each employee is committed to the organization's goals, objectives and work as an effective team member. Historically, the concept of employee commitment was derived from an article "The organization Man", written by Whyte from the United State of America in 1956, where the author described how middle level employees, not only worked for organizations but belonged to them as well. In the same direction, Whyte (1956) also observes that, young organization men identifies their own wellbeing with that of the company and in those years of rapid expansion after the war, many young men of average ability were propelled upward so early and so pleasantly, that they could hardly be blamed if they thought the momentum was constant". Such men assumed that they would be with the organization for their whole careers (ibid. pp. 194), which indicate how committed they were. This work of Whyte set the building block of employee commitment as an area of knowledge.

However the move toward the consolidation and conceptualization of the concept of employee commitment as a concept and area of specific knowledge began in 1960 with work of Becker

(1960). This can also be justified by the study of Ogba (2007) who support that, by 1960, employee commitment had emerged as a distinct construct for study. However, in tracing the discipline from where commitment originate, Becker (1960) in his article 'Notes on the Concept of Commitment', and Kanter (1968) in his book '*Commitment and Social Organization a Study of Commitment Mechanisms in Utopian Communities*' as well as social psychologist Kessler (1971) in his book '*The Psychology of Commitment-Experiments Linking Behavior to Belief*' (all published in United State), argues that, commitment had its origins in sociology and gained prominence in the organizational behavior literature as a potential predictor of employee turnover. However, Ogba (2007) contradicts this position and assert that, a historical view of academic interest in employee commitment in organizational development could be dated back to sixty years during which some management and psychology academics such as Maslow, Weber, Fayol and Herzberg in Abdullahi (2016) wrote and researched extensively on management theories and organizational psychology, which have contributed up to the present studies of employee commitment.

This argument of Ogba (2007) concurs with that of Cohen (2003) who supports that, the concept of employee commitment, grew in popularity in the literature of industrial and organizational psychology. A committed employee is usually loyal and concerned with the future of the organization. The employee has the willingness to make extra efforts to achieve the goals of the organization to grow and develop. Coffman and Gonzalez (2002) classify three types of employee based on the level of commitment, namely: Engaged (committed), Not Engaged (not committed), and actively disengaged (not willing to commit).

On the other hand organizations need to establish proper governance, management, administrative as well as financial structures and systems to ensure that they achieve their goals and objectives effectively and efficiently in the short-term, and develop sustainable programmes in the long-term for organizational development to be achieved. However, the term as used in this paper means something more specific. Over the past thirty years, organizational development emerged as a distinct field of study and practice. Experts now substantially agree as to what constitute organizational development in general, although arguments about details continue, Moorhead and Griffin (2001). Therefore, Employee commitment always plays a very key role in improving the organizational development.

Literature Review

In the present day organizational life, employees' commitment is very important for achieving organizational development. That is why, it has been argued that, no organization can perform at peak levels, unless each employee is committed to the organizational development (Dixit & Bhati, 2012), (Okpara, 2004), (Gbadamosi, 2003), (Angle & Perry, 1981). Allen and Meyer (1996) assert that there are three dimensions of employee commitment and are characterized as a "three component conceptualization of employee Commitment" and are described as "... distinguishable components, of attitudinal commitment. In other words, employees can experience each of these psychological states to varying degrees ...". However, in the later period, scholars engaged in the verification and improvement of this theory of Allan and Meyer. For example, Ko et al. in Abdullahi (2016) finds lack of comprehensive definitions to include the three dimensions and

overlap between AC and NC. Vanderburgh and Self (1993) finds instability between the dimensions as postulated.

Aware of these shortcomings, Allen and Meyer (1997) undertook another study to improve their model. Equally, it is important to note that despite their shortcomings, the leading approach to studying employee commitment has been the three-dimensional (affective, normative, continuance) of Allen and Meyer (1991, 1997). Even though it suffered criticisms from scholars who modified it later (Cohen, 2007), (O'Malley, 2000), and (Morrow, 1993), (Ko et al. 1997), as having methodological issues, overlap of meaning, and instability between the dimensions and therefore controversial about its contribution. However, irrespective of the criticisms levelled against Allen and Meyer's three component model of commitment, it is still the most famous and influential model of measuring workers commitment to their organization. This is because several studies such as, Speechley, Noh & Beggs, Gross & Fullager, Ko et al. Herscovitch and Meyer, Kazari and Emami in Abdullahi (2016) were conducted to test its applicability. But the studies ended up providing strong evidence for the generalizability of Meyer and Allen's (1991, 1997) model of commitment.

Although in more recent years other scholars continue to examine and refine this theory as noted already, some of which include O'Malley (2000), who comes out with five models based on his review of the literature which include affiliative commitment-where an organization's values and interest are compatible with that of employees; associative commitment - where organizational membership increases employees self esteem and status; moral commitment- where employees perceive the organization to be on their side and the organization evokes a sense of mutual obligation in which both the organization and the employee feel a sense of responsibility to each other (This type of commitment is also frequently referred to, in the literature, as normative commitment (Robinson 2001). Affective commitment, this is where employees derive satisfaction from their work and their colleagues and their work environment support that satisfaction; and structural commitment where employees believe they are involved in a fair economic exchange in which they benefit from the relationship in material ways (i.e. enticements to enter and remain in the organization and barriers to leaving. This type of commitment is also frequently referred to in the literature as Continuance Commitment (Robinson, 2001).

According to Eze, (2006) "an organization should be in possession of a compendium of required and desirable skills, knowledge, abilities and attitudes in respect of various jobs through the mechanism of job analysis. Within this analysis, attitudes should direct the functioning of other capabilities." In other words, organizational development is the process of planned change and improvement of organizations through the application of knowledge of the behavioral sciences, Moorhead and Griffin in (Ukpata & Olukotun 2008). Three points in this definition make it simple to remember and use. First, organizational development involves attempt to plan organizational changes, which excludes spontaneous, haphazard initiatives. Second, the specific intention of organization development is to improve organizations. This point excludes changes that merely imitate those of other organizations, or which are forced on the organization by external pressures, or are undertaken merely for the sake of changing. Thirdly the planned improvement must be based on the knowledge of behavioral sciences, such as organizational behavior, psychology,

sociology, cultural anthropology, and related fields of study, rather than on financial or technological considerations. According to Umoh (2002), Organizational Development refers to the development and performance of people working in the organization. Simply put, organizational development is an applied behavioral science approach to planned change and development of an organization in attempts to improve the overall performance and effectiveness. In this case, Umoh posits that, it is concerned with the diagnosis of organizational health and the ability to adapt to change and therefore embrace a wide range of intervention strategies into the social processes of the organization. Gaining the commitment of the entire employees is arguably more significant today than in the past. Organizations seek improved organizational development and sustained competitive advantage as a response to increased market and other external pressures. Worman in Ebikeseye and Dickson (2018) argues that employers will need to gain the willing contribution of a diverse workforce in order to target new market and distinguish their products and services from the competition. There is now a substantial body of evidence demonstrating the benefit to organizations of having strongly committed employees. Indeed, employees who are committed to an organizational development are less likely to leave (Mathieu & Zajac, 1990, Yett and Mayer, 1993) and more likely to attend regularly (Meyer, Stanley, Herscovitch & Topolintsky, 2003) perform effectively (CooperHakim and Viswesvaran, 2005; Riketeta, 2002); and be good organizational citizen (Meyer et al. Riketeta in Ebikeseye and Dickson 2018).

Employee Commitment and Attainment of Organizational Development

According to O'Malley (2000), it is clear that among the five dimensions of ..., are those considered already by Allen and Meyer (1991) (Normative, Continuance and Affective). Therefore, the rest of the two are associative and affiliative. Critically examined however, associative can be merge with affective commitment. This is because associative commitment increases the employee identification with the organization since it increases his self esteem and status. This therefore makes an employee to remain with the organization because they want to. While affiliative commitment can be merged with normative commitment since the organization and employee have common interest and values. This common values or interest can put pressures on an employee to remain with the organization. To support this, Jacobsen in Abdullahi (2016) argues that, an individual is attached to an organization by some (internalized) values that create a feeling of obligation to stay in the organization. In the same vein, Ogba (2007) suggests that two mechanisms are behind normative commitment, first: it may be obtained through a socialization process where the organization values and norms are internalized in the employee. That is, strong fit between organizations and individual values and norms may create strong sense of being part of a whole, thereby leading the employee to think that he or she ought to stay in the organization. Therefore, from the foregoing argument, we can conclude that affiliative commitment is part of normative commitment and the division between the two as done by O'Malley (2000) cannot hold water.

The Dimension of Affective Commitment

Affective commitment according to Biljana in Abdullahi (2016) "is the most common representation of employee commitment. It represents employee's emotional attachment to organization and its goals. It results from an agreement between individual and organizational

values and goals. Individuals who are affectively committed to their organizations believe in the organizations' goals and wish to maintain their organizational membership. Also, Individuals develop a sense of affective commitment toward their organizations when they feel competent at performing their jobs and are satisfied with their roles as organizational members.” It has been argued that, members who are committed on an affective level stay with the organization because they view their personal employment relationship as congruent to the goals and values of the organization (Beck & Wilson, 2000). Equally, affective commitment is one’s desire to belong to the organization. In addition, Wasti (2002) maintains that affective commitment develops mainly from positive work experiences, such as job satisfaction and organizational fairness, and is associated with desirable outcomes, such as higher levels of organizational citizenship behaviors, and lower levels of withdrawal behaviors like absenteeism and tardiness, Morrow, (1993) posits that, affective commitment is a work related attitude with positive feelings towards the organization. Sheldon (1971) in the same direction argues that, this type of attitude is “an orientation towards the organization, which links or attaches the identity of the person to the organization”. Affective commitment is the relative strength of an individual's identification with an involvement in a particular organization (Mowday et al., 1982). It is however important to note that, the strength of affective commitment is influenced by the extent to which the individual's needs and expectations about the organization are matched by their actual experience (Storey, 1995). Tetrick (1995) describe affective commitment as “value rationality-based employee commitment, which refers to the degree of value congruence between an organizational member and an organization”. It is also argued that, employees’ emotional bond to their organizations (that is their affective commitment) has been considered an important determinant of dedication and loyalty (Rhoades, Eisenberger & Armeli, 2001).

It is however argued that, affectively committed employees are seen as having a sense of belonging and identification that increases their involvement in the organization activities, their willingness to pursue the organization goals, and their desire to remain with their organizations (Allen & Meyer, 1991). This also means affective attachment to the organization; which refers to the employee’s emotional attachment to, identification with, and the involvement in the organization. Employee with strong affective commitment, remain employed with the organization because they want to. Similarly, Jaja and Okpu (2014) maintain that, affective commitment is also concerned with the individual’s emotional attachment and identification with the organization. They also argue that, employees with affective commitment stay with the organization because they want to. Lastly, affective commitment is influenced by factors such as job challenge, role clarity, goal clarity, and goal difficulty, receptiveness by management, peer cohesion, equity, personal importance, feedback, participation, and dependability. When all these are done efficiently and effectively, there is no doubt that organizational development would be achieved.

The Dimension of Continuance Commitment:

Continuance commitment on the other hand according to Gaertner and Nollen (1989) refers to utilitarian gain from the employment relationship, with the employee being less likely to leave the organization based on the extent to which the contribution ratio is in balance or favorable to the employee. This, however, supports Becker’s (1960) argument that attachments to the organization are influenced by “side bets,” which means, accrued extrinsic benefits that would be lost if

membership is terminated. Continuance commitment also represents cognitive attachment between employees and their organizations because the costs of leaving organizations outweigh the benefits (Walsh and Taylor, 2002). However according to Biljana (2004), the costs may include losing a good pay and other forms of material benefits, established networks or contacts, image, necessity to reallocate, job search expenses, etcetera. He also maintains that sometimes employees express continuance commitment because of personal investments in nontransferable investments. These investments include some special skills that are unique to a particular organization, close working relationships with coworkers, and other benefits that make it too costly for one to leave organization and seek employment elsewhere. Additionally, continuance commitment refers to the perceived loss associated with leaving the organization, which refers to an awareness of the losses associated with leaving the organization. These potential losses of leaving the organization include; the threat of wasting the time and effort spent acquiring non transferable skills, losing attractive benefits, giving up seniority based privileges or having to uproot family and disrupt personal relationships. In addition to the loss involved in leaving the organization, continuance commitment will also develop as a function of a lack of alternative employment opportunities. Therefore it is important to note that, employee whose primary link to organization is based on continuance commitment remain, because they need to (Allen & Meyer, 1991).

In the same vein, Manktelov (2007) argues that, this type of commitment occurs when you weigh up the pros and cons of leaving the organization are weighing up. He may feel that there is need to stay at his company, because the loss you would experience by leaving it is greater than the benefit or thinking might gain in a new role. Manktelov therefore maintains that these perceived losses, or "side bets," can be monetary (would lose salary and benefits); professional (you might lose seniority or role-related skills that you have spent years acquiring); or social (you would lose friendships or allies). Increasingly, however, the severity of these "losses" often increases with age and experience. You are more likely to experience continuance commitment if you are in an established, successful role, or if he has had several promotions within one organization. Jaja and Okpu (2014) also argued that, this is more calculative. That is, employees with the continuance commitment are aware of the cost associated with leaving the organization and they stay with the organization because they need to. This definition is also similar to Argyle (1989) who argues that, calculative commitment (which he invariably refers to continuance commitment) is an instrumental attachment to an organization. While Etzioni (1961) in his analysis, also refers to continuance commitment as calculative and exchange-based commitment. For organizational development to be realized elements like employment relationship, extrinsic benefits on the side of an employee, interpersonal investment by employees has to be given due consideration. This type of relationship can be used for organizational development because employees feel that leaving the organization will cost them a lot in their lives.

The Dimension of Normative Commitment

Normative commitment implies sense of belonging to the organization. It is however important to note that, employees with the high level of normative commitment, feel that they ought to remain with the organization. Normative commitment may also develop when an organization provides an employee with "reward in advance" (e.g. paying college tuition) or incurs significant costs in providing employment (Allen & Meyer, 1991). Recognizing of these investments causes

employees to feel an obligation to reciprocate by committing themselves to the organization until debt has been repaid (Scroll, 1981). Also feeling of obligation to remain with an organization may result from the internalization of normative pressures exerted on an individual prior to entry into the organization (family or cultural orientation) or following entry (organizational orientation) (Wiener 1982). Furthermore, Wiener and Vardi (1980) describe normative commitment as “the work behavior of individuals, guided by a sense of duty, obligation and loyalty towards the organization”. It is however important to note that, organizational members are committed to an organization based on moral reasons (Iverson & Buttigieg, 1999). The normative committed employee considers it morally right to stay in the organization, regardless of how much status enhancement or satisfaction the organization gives him or her over the years. In the same argument, Manktelov, (2007) suggests that, this type of commitment occurs when one feels a sense of obligation to the organization, even if one is unhappy with ones role, or even if one want to pursue better opportunities. One feels that one should stay with the organization, because it is the right thing to do. Jaja and Okpu (2014) also posit that, normative commitment “has to do with the feelings of obligations employees have to continue with the organization.” However, societal norms and a feeling that employees ought to remain with the organization influence this commitment (McDonald & Makin, 2000). Adenguga, Adenuga and Ayodele (2013) also argue that, normative commitment “can be explained as the situation where employees do not leave the job as a result of moral obligation to duty. Furthermore, in his analysis, Jha (2011) argues that, normative commitment is influenced by cultures that stress the importance of loyalty and devotion to institutions such as family, marriage, country, religion and employment organizations. According to Ogba, (2007) two mechanisms are behind this kind of commitment, first, normative commitment may be obtained through a socialization process where the organization values and norms are internalized in the employee. That is, strong fit between organizations and individual values and norms may create strong sense of being part of a whole, thereby leading the employee to think that he or she ought to stay in the organization (ibid). Secondly, normative commitment may also be created by more instrumental mechanisms, mostly by how incentives are used. An employee may receive a reward “that creates within the employee a sense of obligation to reciprocate” (Jacobson, 2000). In view of this therefore, normative commitment means “the totality of internalized normative pressures to act in a way which meets organizational goals and interest” (Weiner, 1982).

For organizational development to be achieved through employee commitment issues like loyalty, devotion of employees to organizational goals and objectives, societal norms and a feeling that employees ought to remain with the organization influence contribute to the realization of organizational development. It is important to note that employee commitment and organizational development has a significant relationship in reduction of absenteeism, lateness to work and general job turnover. A committed employee is the one that is loyal to the organization, defends it as at when due and sees the success of such any organization as his contribution, thus, would not want to indulge in detrimental behaviors that might bring down the organization. Therefore he/she would shun negative attitudes like absenteeism, lateness to work or job turnover and so on. This is in line with the findings of Matthew and Zajac (1990); and Meyer (1998) who argue that employee who is committed to an organization are less likely to leave and are more likely to attend

regularly. So generally, affective commitment, continuance and normative commitments are tools that can be used in achieving organizational development.

Challenges Facing Employee Commitment and Organizational Development

Organizations both public and private ones need to establish proper governance, management, administrative as well as financial structures and systems to ensure that they achieve their goals and objectives effectively and efficiently in doing that they are faced with numerous challenges. Some of those challenges include employees are highly associated with emotion and intelligence which in one way or an other affect the operation of organizations. Therefore, the requirement to fulfill employee need hierarchy is rather an important aspect especially on employee commitments towards organizational development, employee's attitude towards their organization is another challenge. How employee's commitments have been influenced and the practical effects of employees' commitment in order to attain the desired organizational goal effectively; other challenges include poor investment on employee's development, employee's turnover and so on. As Eze (2006) posits that "an organization should be in possession of a compendium of required and desirable skills, knowledge, abilities and attitudes in respect of various jobs through the mechanism of job analysis. Within this analysis, attitudes should direct the functioning of other capabilities." Failure of the organization to have enough knowledge, skills and abilities of its employees is another great challenge to its operation and general organizational development.

Conclusion

The paper seeks to assess the role of employee's commitment in the organizational development; employee commitment with a view to finding the extent to which employees are committed to their job in terms of affective, continuance and normative. Based on this, the paper finds high affective and continuance commitment which signifies the pay they enjoy and the difficulty in securing similar or better job. However, low normative commitment is found which clearly shows that, the employee does not see it as a necessity or obligation to remain with their jobs. Employees are ready to go upon securing better opportunities and majority of them are highly ambitious. This however justifies Meyer and (Allen 1991, 1997) multidimensional model of employee commitment which signifies approaching commitment from three different perspective (affective, continuance and normative), rather than single dimensional perspective. It therefore indicates that although the employees are committed, the commitment differs in terms of its causes and/or determinant. Therefore, solution to the area of normative commitment is a desirable endeavor.

Recommendations

The paper finds high affective and continuance commitment but low normative commitment, therefore:

- i. There is need to find a way of increasing employees' normative commitment through increasing reward in advance such as paying college fee in advance and house loan. This is because, an organization that sponsors its employee to study by providing him or her with loan for him to repay in some years later, will be obliged to reciprocate by remaining with that organization.

- ii. Employees' commitment must be valued appraised and rewarded accordingly. Good performance appraisal system must be put in place to reward the best performers so that employees can be encouraged to perform at peak.
- iii. Finally, taken into cognizance, the importance of employee commitment for organizational development, it should always be viewed as a multi dimensional variable. This does not provide good and better understanding of scenario of employee commitment. To this end, managers should always view and manage employee commitment in its affective, continuance and normative commitment.

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DETERMINATIONS AND QUANTIFICATIONS OF NITROGEN AND PHOSPHOROUS LEVELS IN WATER SAMPLES FROM AJIWA DAM AND THE OCCURRENCE OF EUTROPHICATION

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Abstract

Water samples were collected from the six different locations or sites around the dammed area selected labelled as S1, S2, S3, S4, S5, and S6 for the purpose of this study. From each given location the water was collected in a specimen bottle after dipping the bottle about 5-10 cm deep inside the water so that the sample was collected at the approximate dissolution nutrient maximum concentration. The water sampled, about one liter from each of the six location collected was covered with polythene bag to avoid lightening. The samples were taken to the laboratory for the determinations and quantifications of Nitrogen and phosphorous present in dissolved form. From the results obtained, it was found that all the samples from the six locations had Nitrogen and phosphorous level above the World Health Organization maximum contaminant level of 0.03mg/L and 50mg/L. This very high concentration of mineral deposits came from different sources of pollutants reaching the dam resulting into eutrophication of the water body surface which is noticed with growth of plants species of different diversity. It is therefore recommended that the sources of pollutants from the neighboring dam areas should be checked regularly and hence controlled.

Keywords: Identifications, Quantifications, Nitrogen and Phosphorous Conc, Ajiwa Dam Eutrophication occurrence.

Introduction

Nitrogen and Phosphorous input and enrichment in water are the most primary factors to induce water eutrophication. The “experienced molecular formula” of alga is as “ $C_{106}H_{263}O_{110}N_{16}P$ ” based on the chemical components of algae. N and P are the two elements which account for least proportion in the molecular formula of algae, especially P, it is the main limiting factor to control the growth of alga in water (Main stone &Parr, 2002). It was reported that 80 percent lake and reservoir eutrophication is restricted by phosphorous, about 10 per cent lake and reservoir eutrophication is relative to nitrogen, and the remaining 10 per cent of lake and reservoir eutrophication is relative to other factors. In many ecosystems, phytoplankton biomass is correlated with the availability of N or P. The composition of phytoplankton specie is also affected by the concentrations of N and P (Reynolds, *et al* 2012).

Eutrophication is defined as the sum of the effects of the excessive growth of phytoplankton leading to imbalanced primary and secondary productivity and a faster rate of succession from existence to higher serial stage, as caused by nutrient enrichment through runoffs that carry down overused fertilizers from agro ecosystems and/or discharged human waste from settlements. Water eutrophication can be greatly accelerated by human activities that increase the rate of nutrient input in a water body, due to rapid urbanization, industrialization and intensifying agricultural production. For lake aquatic ecosystems, human activities in the watershed can lead to loss of dominant species and functional groups, high nutrient turnover is low.

Water eutrophication is one of the most challenging environmental problems in the world. The increasing severity of water eutrophication has been brought to the attention of both the governments and the public in recent years. The mechanisms of water eutrophication are not fully understood, but excessive nutrient loading into surface water system is considered to be one of the major factors (Fang *et al.*, 2004; Tang *et al.*, 2003). The nutrient level of many lakes and rivers has increased dramatically over the past fifty years in response to increased discharge of domestic wastes and non-point pollution from agricultural practices and urban development (Main stone, *et al.*, 2007). For more than 30 years, nutrient enrichment, especially phosphorus (P) and nitrogen (N), has been considered as a major threat to the health of coastal marine waters (Andersen *et al.*, 2004). Once a water body is eutrophicated it will lose its primary functions and subsequently influence sustainable development of economy and society. Therefore, nowadays the solution of water eutrophication and recovery of the multiple functions of the water system have become the key issues for environmental biologists.

Surface water quality guidelines have been improved in recent years. The parameters to assess the ambient surface water quality have been increased. In China, the parameters for assessing environmental quality of surface water have been increased to over 30 (CNEPA, 2002). Five classes of surface water quality have been set up, and some selected parameters for assessing water quality of lakes or reservoirs. However, there are no perfect evaluation criteria for assessing water eutrophication. Generally, the physical and chemical evaluation parameters were used to assess water eutrophication, mainly nutrient concentration (N and P), algal chlorophyll, water transparency and dissolved oxygen. Although there are many different assessment parameters, the concentrations of total nitrogen and phosphorous are the two basic ones. Scientist used total nutrient status index (TNI) to assess eutrophication status of lakes.

The investigation from the UNEP (United Nation Environmental Protection) indicates that about 30 percent – 40 percent of the lakes and reservoirs have been affected more or less by water eutrophication all over the world.

Water eutrophication has been reported in USA for Washington Lake (Welch & Crooke, 1987), etc. In Lugano Lake, between Italy and Switzerland, a faster rate of eutrophication was reported due to excessive discharges from human settlements around the lake, owing to population increase and immigration. The majority of Danish lakes are highly eutrophic due to high nutrient input from domestic sources and agricultural activities (Jespersen *et al.*, 1999). Studied three lakes of Bhopal (Upper Lake, Lower Lake and Mansarovar Lake) in India, to assess the potential fertility of lentic waters and analyze the floral ecology. The highest level of eutrophication was found in Mansarovar Lake. The nutrient loading into the lake initially promoted the growth of phytoplankton. Eutrophication constitutes a serious threat too many European lakes, such as Pamvotis Lake in Northwest Greece, which has undergone cultural eutrophication over the past 40 years and is currently eutrophic. In South Africa, de Villiers (2007) reports that hypertrophic conditions indicated by TP levels prevail at least episodically at all of the Berg River monitoring stations; additionally, river water phosphate levels show a dramatic increase by a factor of more than 10 over the past 20 years, mainly due to anthropogenic inputs. Chivero Lake, Zimbabwe was

reported to be hypertrophic and not sustainable. Sewage effluent is the major source of nutrients in the lake.

Water eutrophication in rivers occurs worldwide. During the past several decades, catastrophic losses in sea grass meadows have occurred worldwide, especially in flushed estuaries, coastal embankments and lagoons where nutrient loads are both large and frequent. Coastal marine ecosystems of Northern Europe are under pressure from global change (e.g., nutrient enrichment), which threatens these resources (Barbieri, 2010).

Fertilizer from farmland etc, increased nutrient load to water body is now recognized as a major threat to the structure and functions of near shore coastal ecosystems; and severe eutrophication problems associated with harmful algal bloom is a major manifestation. Although related to nutrient enrichment in general, the basic cause of water eutrophication is more connected to an imbalance in the load of nitrogen and phosphorus with respect to silica (Davin *et al.*, 2007). At present excessive TN and TP in water are considered as the only factors inducing water eutrophication, but nutrient enrichment is only the necessary but not the sufficient condition for algal boom. Eutrophication is not likely to occur if both TN and TP in water are low but eutrophication may not occur in water which is high in TN and TP if other conditions such as temperature and current speed are not favorable. The influencing factors of water eutrophication include: (1) excessive TN and TP, (2) slow current velocity, (3) adequate temperature and favorable other environmental factors, and (4) microbial activity and biodiversity (Gillett, Reddy, 2016).

The aim of this research work is to determine and quantify the concentration level of Nitrogen and Phosphorous in Ajiwa dam and how it relates to eutrophication in the dam.

Material and Methods

Sampling sites were selected by identifying six points in the dam. The samples were collected from the dam water from different locations. The dam was divided into six different location sites namely S1, S2, S3, S4, S5 and S6 for the purpose of the study. At each point, the water was collected in a specimen bottle after dipping the bottle about 5-10 cm deep inside the water dam so that it is collected at the appropriated water dam dissolution maximum point rates. The water sampled about one liter now containing different elements and compounds all together in dissolved form was now taken to laboratory for investigation and analysis. Nitrogen and Phosphorous was what this investigation intended to focus on but, no other element, compounds, micro fauna and flora of different species which might be found present in the water samples collected were the concern of the study.

Determinations of Nitrogen in the Water Samples

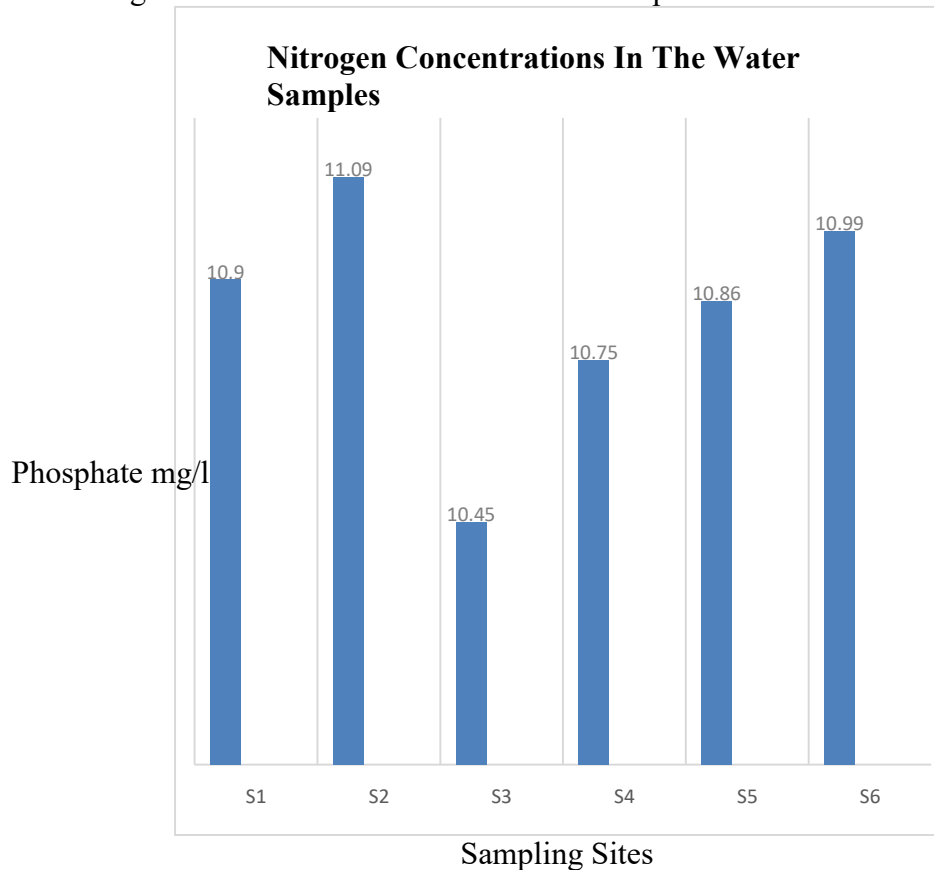
This was done with Kjeldahl method of measuring nitrogen which involved digesting the samples with concentrated sulfuric (H_2SO_4) to convert organic nitrogen to ammonia. Sodium hydroxide (NaOH) was added to the sample to liberate the nitrogen as ammonia gas (NH_3). The gas produced leading into a solution of boric acid converted the gas back to the original sample, thus standardized and determined and estimated the nitrogen level in the water sample.

Determination of Phosphorous in the Water Samples

50cm³ of water sample was pipetted into a 500cm³ volumetric flask, 5cm³ of Ammonium molybdate solution and 3.0cm of ascorbic acid were added with swirling. The mixture was diluted to the mark with deionized water and was allowed to stand for 30 minute for maximum colour development, the absorbance was then was read at 660mm including the blank. This procedure was applied for the remaining samples and the standard solutions.

Results and Discussions

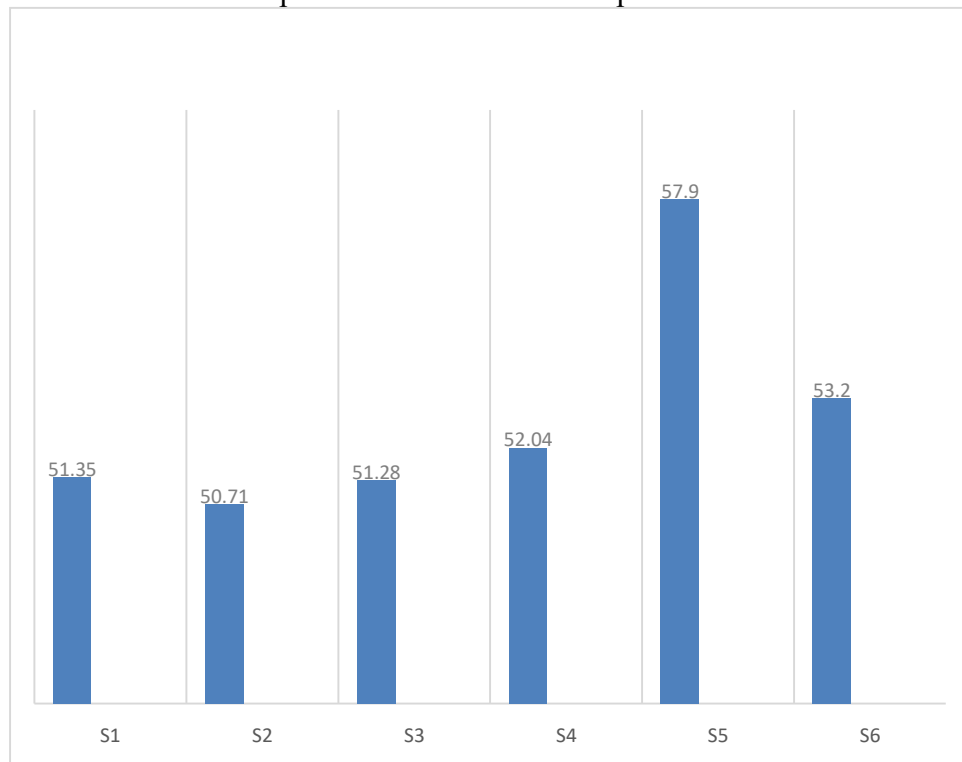
Figure 1: Nitrogen concentrations in the dam water samples



Results from the laboratory investigations of Nitrogen revealed that, the water samples collected from all the six points selected in the dam areas were highly loaded with concentration of Nitrogen and is presented in figure 1 having mean value of 10.85 mg/l. This value indicates that all the locations from where the water was sampled had Nitrogen level above the recommended level suggested for drinking water by the World Health Organization that is 0.03mg/L (WHO, 2010). The high level of this element must be connected to the presence of farmlands near the dam engaging in the farming activities all season's period throughout the year. Agricultural activities are the major source of income to inhabitants of the community. The farming activities through the application of natural and synthetic fertilizer leading to the enrichment of the dam with Nitrogen caused algae in the dam. This is in line with the opinion by Ayodele (1995) who observes that the concentration of Nitrogen might increase during the wet season when agricultural

activities are at their peaks and thus the health hazards such as algal bloom that is harmful to aquatic animals.

Figure 2: Concentration of Phosphorous in dam water samples



Phosphorous Concentration in the Water Samples

The samples investigated for potassium suggested that it has a mean value 51.75 mg/L, This shows clear results that all the samples collected from the sites had phosphorous above the world Health Organization contaminant level of 50mg/L (WHO, 1998).The high level of phosphorous concentration level must be connected to the continuous use of application of phosphorous rich fertilizer into the dam water body for so a long time leading to enrichment of water with high level of dissolved elements causing eutrophication of the water in the dam. The high concentration level of phosphorous which has been discovered to be cause by the deposition from nearby households and neighboring farm lands of the dam.

Conclusions

Results from this investigations revealed that, all the samples from the sampling sites had high level of ... in the dam and thus this led to the production of algal growth and aquatic plants, reducing water clarity, unpleasant odor and taste. There is low dissolved oxygen and production of toxins from blue green algae. It is concluded that due to the problem of eutrophication in the dam caused by the concentrations level of Phosphorous, proper treatment applications through ion-exchange reverse osmosis can be employed to rehabilitate and prevent the dam from too much accumulations of Phosphorous before human consumption and irrigation purposes or activities.

Recommendations

From the results of the investigations the following recommendations are put forward

1. Nitrogen and Phosphorous concentration levels in the dams should be monitored by reducing the amount of nutrient deposition into the dam especially Nitrogen and Phosphorous that encourages the growth of phytoplankton's and algae in water bodies including dam causing eutrophication of the dam.
2. The increase in acidity in the dam caused by Nitrogen and Phosphorous concentration and through defecation in the dam can be reduced by controlling number of animal that live inside the dam. This can be done by encouraging more fishing activities in order to check over population in the dam
3. There should be law enforcement by government of that area to protect water resources and the water users and should be discouraged from depositing organic waste into the dam which is responsible for pollution and eutrophication in the dam.
4. Government should make the provision and strict compliance and adherence to the laws and legislations governing the use of dam for any purposes, this will ensure sustained unpolluted and eutrophication free dam.

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SOCIO-ECONOMIC ANALYSIS OF SELF-EMPLOYMENT AMONG WOMEN IN KATSINA METROPOLIS

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Abstract

This article analyses the role of self-employment among women in Katsina State in reducing social problems. Evidences were drawn from Katsina metropolis. The objective was to ascertain the self-employment culture among housewives in Katsina Metropolis. The role of the economic activities in reducing dependency on their husbands; its effects on social problems, the possible measures to improve women participation in economic activities and the measures to be taken by the government to improve self-employment among women in Katsina State in general. Analysis was conducted using chi-square to test the research hypothesis that women's self employment in Katsina metropolis depended on the various reasons they engaged in different type of businesses or not. The test of the research hypothesis shows that self employment among women in Katsina does otherwise depend on the women's reasons for their engagement in different (occupation) businesses.

Keywords: Employment, Self Employment, Dependency

Introduction

Unemployment is a macro economic issue that every society is grappling with. It has been one of the most pressing and uncontrollable situations which is gradually eating deep into almost all less developed nations, a situation where there is an excess supply of labour at the prevailing wage rate. People are able and willing to work but could not get work. In Nigeria, the incidence of unemployment has been deep and widespread, cutting across all facets of sex, age groups, educational strata and geographical entities. Fundamentally, the female sex is often, the most affected by unemployment in the country given their low level of education and cultural apathy compared to their male counterparts.

High rate of unemployment can lead to some reactive consequences on the unemployed and the society at large. The upshots include depression, loosing of self-esteem, violence, social strife, crime etc. It also lead to social vices like Drug addiction, prostitution, hopelessness, civil abuse, disrespect of leaders and those in authority, frustration and so many more. Basically, unemployment has been categorized as one of the serious impediments to social progress in Nigeria. Apart from representing a colossal waste of a country's manpower resources, it generates welfare loss in terms of lower output thereby leading to lower income and well-being (Tsauni, 2008).

Self-employed persons are those individual economic agents in the private sector who do not enter into wage agreement with either a private or public company or institutions. They are also found in various trades and professions. Areas where people can be self-employed include:

Agriculture, Engineering, Industry or Manufacturing, Building, Electrical and Mechanical works like motor mechanic. Others include Carpentry, Artist works, Tailoring, Trading, Earthworks, Leatherworks, Steelworks, Groundnut oil making, Farming, Kuli-kuli, (Groundnut cake) Food

selling , Hair dressing and making, Weaving and Knitting, Feather works, Sales of petty things, “Adashe business” running schools and hospitals or pharmaceuticals or medicine stores.

However, the rate of employment is more prevalent among women particularly in northern Nigeria, where most of them lack western education and are disfavored by some cultural/religious beliefs that restrict them from engaging in formal employment. Although, women could alternatively engage in some economic activities to render themselves selfemployed, such is not often the case particularly among housewives in Nigeria. That has indeed, contributed to their increasing dependence on their husbands with attendant consequences on households’ incomes, social security and overall welfare in Nigeria.

In view of the aforementioned problem, this paper focuses on socioeconomic analysis of selfemployment among women in Katsina State with particular attention to housewives in Katsina Metropolis. Specifically, the paper examines the self-employment culture among housewives in Katsina Metropolis, the economic activities that housewives in the Metropolis often engaged in, the impact of the economic activities they engage in on the level of their dependency on their husbands, the possible measures to improve women participation in economic activities in the State and Nigeria as a whole and the measures the state and federal governments should take to improve self-employment among women in the State, and Nigeria.

Literature Review

The economic aspect of unemployment originates from a situation in which the quantity of labour demanded is less than the quantity supplied at the market wage rate. This results in unemployment. Unemployment occurs when wage rates are too high, that is, above competitive levels. The situation of unemployment is to expand demand or, if competitive forces are operating, to rely on automatic market forces to derive wage rates down to the level at which the amount of labour demanded equals the amount supplied(Sharp, Register and Grimes, 2002). There are indeed, many complexities and ramifications concerning the concept of unemployment. In the literature, some refer to unemployed as people without jobs. Although, it may be true, but many people without jobs are not considered unemployed. For instance, people who prefer leisure to work those over 65 years and students. Perspectives view unemployment as a situation whereby job seekers are willing to work on the prevailing wage rate, but could not get job.

Concept of Unemployment

In every growing society, individuals are engaged in one kind of economic activity or the other. They develop some sort of production that will enable them to sustain their life through the income they generate. This involves the attainment of both wage employment, and other nonpaid employment that the citizen develop in order to overcome the problem of dependency and unemployment (Tsasuni, 2008 sighted Olagunji, 1992). Self-employment is a situation whereby a person works for him/herself rather than as an employee. To be self-employed an individual is normally skilled or talented or even has a niche product or service. To be self-employed is not the same as being a business owner. A business owner is not required to handle the day to day operations of his or her company while a self-employed person has to handle his own business in order to survive. Work carried out as business, rather than an employee is termed selfemployment.

They are responsible for their own tax, national insurance among others. They are also responsible for their own health care and safety. Income from self-employment is a mixture of rewards for work, return on private capital employed and rewards for entrepreneurship.

According to Robins (1945) sighted by Tsauni (2008) Self-employment is regarded as a practice of system of production a person is taken and control without any organizational arrangement of receiving payment from external sources. He believes that since there is no any agreement of receiving payment either wages or salaries, then, an individual can use his initiative to produce something to support his living or as such production will be useful to him and the society. This signifies that if given a little initial supports housewives who are not employed could economically improve upon their children, family and the society at large.

Morgan (2006 in Rabi, 2009) states that it may be a little unfair to mix the phrase “self employment” and “work at home” as they might not always be the same thing. Self employment is the act of working for one self alone having no boss to take order from. It is finding jobs and being paid for them, or receiving money for the products and/or services.

Tsauni (2008) sighted in Daorn Bush (1985) defines employment as “ a situation where individual economic agents In the private sector that do not have advantage of wage agreement with either public or private organizations decide to take action and force an event that will earn them a living”. He believes the self-employment can be a means of solving unemployment problems. To him it involves individuals that are unemployed to use their lives, most especially housewives who have numerous roles as mothers, sisters, home makers, and wives etc. to have the zeal of involving in some kinds of economic activity to assist themselves, their family as well as the economy in general.

According to Sani (1992) part of the pushing factors to self-employment is inflation. Economic literature established that self-employment offers the advantage of curtailing the effect of inflation because when there is inflation, those on fixed salaries/wages suffer most. Sani believes that persistent inflation and difficult living condition push people into trying to find additional source of income. The unemployed women in the quest to improve their standard of living often engage in one economic activity or the other. Other factors are, plans for family and personal development such as paying for family and children’s school fees and school expenses such as pocket money, and supporting their own needs also motivate women to earn money as they see these as an investment.

Tsauni (2008), sighted in Udo (1996) claims that self-employment prepares a person for a career. It provides a good means of generating revenue and improvement in socio- economic well-being. At the household level, individuals/ housewives are experts in struggling with unemployment and they have the potentials to build their own lives via participating in economic activities. Housewives partake in activities of small business like frying of groundnut, roasted corn, knitting business, oil making, as well as other petty businesses that can help their lives. To Udo for instance, the goals of self-employment is to provide citizen, particularly women with an opportunity to engage in petty works at home to bring in money which is used to assist the running of the family.

Nigerian women have been contributing to the development process (World Bank 1992). Some women earn their livelihood through working in small scale farming and non- farming activities in towns of all sizes and rural market Centre Tsauni (2008), sighted in Udo, (1993). They have so far facilitated marketing, finance market and establish middle women. This can be seen through the production and sales of their locally handmade produce like spices of different aroma, soap making, Vaseline, beans cake etc.

Although, socio- economic development issues in Nigeria are rarely treated from the gender point of view (Par Part, 1988), statistics from the recent census estimate, put women as constituting 60% of the population and about 25% of the actual workforce. By that, it implies, the participation of women in active labour force is almost negligible.

Therefore, self-employment serves as a veritable tool for promoting economic activities, reducing unemployment and dependency among housewives in Katsina and Nigeria in general.

In view of its inconclusiveness, the meaning of unemployment may be grasped clearly by distinguishing between different types of unemployment. The major types are Frictional, Structural and Cyclical unemployment.

Frictional Unemployment

Frictional unemployment is caused by changes in the techniques of production. For example, more machinery may be introduced in the industry to increase productivity. These may replace labour and lead to the retrenchment of workers. It also occurs between the time a student completes his studies and the time he is able to find a job.

Seasonal Unemployment

This type of unemployment occurs in industries whose production is subject to seasonal variations. It occurs when there are suitable seasons for production while other seasons are not suitable. In other words, the level of production changes from one season or period to another. During the season of low production, less labour is required, and some people may be unemployed. Examples are road and house construction, and crop farming. For instance, during the period of planting and harvesting crops, plenty of farm labour will be required. But afterwards, the labourers will be laid off.

Structural Unemployment

Unemployment usually arises from changes in the pattern of demand of a country's population. If the demand for a commodity falls considerably, producers restructure their patterns of production. They produce less of the commodities whose demand has fallen. The production is readjusted in favor of the products which are in high demand. However, the factors of production are not perfectly mobile. It takes time for readjustment, and some workers may have to be laid off. The unemployment that results from readjustment in the pattern of production, as a result of changes in the pattern of demand, is referred to as structural unemployment. Changes in the pattern of demand may be brought about by changes in the age distribution of population.

Cyclical Unemployment

This type of unemployment occurs during the depression or recession stage of the business or trade cycle. During depression, demand is at a low level. To accommodate such low demand, some firms may be readjusting their levels of production. This may lead to the laying off of some workers, or the factors of production may be used below capacity. This type of unemployment resulting from depression is called cyclical unemployment.

Methodology

Background of Katsina Metropolis

Katsina Metropolis is a Local Government Area and the state capital of Katsina State in northern Nigeria.^[1] Katsina is located some 260 kilometers (160 mi) east of the city of Sokoto and 135 kilometers (84 mi) northwest of Kano, close to the border with Niger. The local government area of Katsina is 142 km², with a population of 318,459 at the 2006 census. In 2016, Katsina's estimated population was 429,000.^[2] The city is the centre of an agricultural region producing groundnuts, cotton, hides, millet and guinea corn and also has mills for producing peanut oil and steel. The people are predominantly Muslim, and the population of the city is mainly from the Fulani and Hausa extraction.

The population with respect to the research work constitutes all women in Katsina. Specifically therefore, some housewives in Katsina Town were sampled. The sampling technique used is simply random in nature, that is, each housewife has an equal chance of being selected.

The sample size drawn randomly was one hundred (100) housewives from Katsina Metropolis.

The data collected were analyzed with the use of descriptive technique which is concerned with organizing, summarizing and describing data for drawing inferences.

Results and Discussions

Out of the 100 questionnaires administered, 94 (94%) were answered and returned and 6 (6%) were not.

Table 1: Age distribution of women in Katsina Metropolis

Age	Frequency (f)	Percentage (%)	Valid Percentage (%)	Cumulative Percentage
15-20	8	8.5	8.5	8.5
21-25	18	19.1	19.1	27.7
26-30	14	14.9	14.9	42.6
31-35	12	12.8	12.8	55.3
36-40	19	20.2	20.2	75.5
41-45	10	10.6	10.6	86.2
46+	13	13.8	13.8	100.0
Total	94	100.0	100.0	

Source: Field Survey 2020

From the said answered and returned figure, 42.5% of the respondents are between the ages of 15-30 years while the age group between 31-45 years have a percentage of 43.6%. The remaining 13.8% are within the age of 46 years and above.

Table 2: Marital Status of the respondents

Marital Status	Frequency (f)	Percentage (%)	Valid Percentage (%)	Cumulative Percentage
Single	18	19.1	19.1	19.1
Married	63	67.0	67.0	86.2
Widow	13	13.8	13.8	100.0
Total	94	100.0	100.0	

Source: Field Survey 2020

The table above shows that 63 amounting to 67.0% of the housewives who are married, 18 (19.1%) are singled and 13 (13.8%) are widows

Table 3: Level of Education of the Respondents

Level of Education	Frequency (f)	Percentage (%)	Valid Percentage (%)	Cumulative Percentage
Primary	5	5.3	5.3	5.3
Secondary	21	22.3	22.3	27.7
Diploma	22	23.4	23.4	51.1
NCE	18	19.1	19.1	70.2
Degree	11	11.7	11.7	81.9
None	4	4.3	4.3	86.2
Arabic	13	13.8	13.8	100.0
Total	94	100.0	100.0	

Source: Field Survey 2020

The above table shows that 5.3% of the respondents have attended primary school, 22.3% of the respondents have secondary school certificate and 42.5% of the respondents are NCE and Diploma certificate holders and 11.7% are degree holders. The remaining 18.1% of the respondents did not attend western education. Rather, they are found to have attended either Islamic Arabic School, traditional or vocational training school etc.

Table 4: Number of Dependents on the Respondents

Number of Dependents	Frequency (f)	Percentage (%)	Valid Percentage (%)	Cumulative Percentage
0	41	43.6	43.6	43.6
1	8	8.5	8.5	52.1
2	11	11.7	11.7	63.8
3	9	9.6	9.6	73.4
4	4	4.3	4.3	77.7
5	6	6.4	6.4	84.0
6	1	1.1	1.1	85.1
7	1	1.1	1.1	86.2
8	3	3.2	3.2	89.4
9	3	3.2	3.2	92.6
10+	7	7.4	7.4	100.0
Total	94	100.0	100.0	

Source: Field Survey 2020

Although the sampled women are dependent on their husbands or relatives, they equally have children or dependents whom they often provide for completely or they do complement their husbands/relatives. It is revealed that 43.6% does not have dependents/children, 11.7% of the respondents have 2 dependents /children, 9.6% have 3 dependents/children, 8.5% have 1 dependents/children, 4.3% have 4 dependents/children, 6.4% have 5 dependents/children, 1.1% of the respondents have 6 and 7 dependents/children, 3.2% have 8 and 9 dependents/children.

Yet, 7.45 of the sampled women have 10 and above dependents/children.

Table 5: Identified Occupations of women in Katsina Metropolis

Occupation	Frequency (f)	Percentage (%)	Valid Percentage (%)	Cumulative Percentage
Tailoring	21	22.3	22.3	22.3
Hairdressing	4	4.3	4.3	26.6
Food Sell	5	5.3	5.3	31.9
Adashe(Contribution)	4	4.3	4.3	36.2
Beans Cake (kosai)	7	7.4	7.4	43.6
Soya Beans (Awara)	6	6.4	6.4	50.0
Plait Hair	1	1.1	1.1	51.1
Sell Firewood	1	1.1	1.1	52.1
Sell Waina	4	4.3	4.3	56.4
Knitting	2	2.1	2.1	58.5
Dry Cleaning	1	1.1	1.1	59.6
Oil Milling	3	3.2	3.2	62.8
KuliKuli	2	2.1	2.1	64.9
Poultry Farming	9	9.6	9.6	74.5
Buying & of Selling Wears	4	4.3	4.3	78.7
Sell of Local Drinks	9	9.6	9.6	88.3
Soap Making	2	2.1	2.1	90.4
Baking & Sells of Snacks	1	1.1	1.1	91.5
Shoe Making	2	2.1	2.1	93.6
Food Stuff Selling	1	1.1	1.1	94.7
Petty Trade	5	5.3	5.3	100.0
Total	94	100.0	100.0	

Source: Field Survey 2020

Housewives in Katsina Metropolis are engaged in various economic activities which include tailoring, hair dressing business, sell of food, adashe (i.e the local savings), beans cake making, soya beans cake,(awara), plait hair, petty trading, sell of firewood, making and selling masa, knitting, dry cleaning, oil milling, kuli-kuli (groundnut cake). Other activities are poultry farming, buying and selling of wears, fish rearing, sell of local drinks (sobo and kunu), soap making, making air fragrance, baking and sells of snacks, shoe making, buying and sell of bed spread and blanket, food stuff selling etc.

It is observed that most housewives studied do engaged in a pair or multiple businesses ranging from three, four, five and some even seven. Reasons advanced indicated that they engaged in business in order to improve their living standard, reduce their dependency on their husbands, realize profit in the business, as well as to be self reliant. But, one may ask how could housewives

cope?. It was realized that housewives plan their daily domestic work so that they could have enough time for their business.

Table 6: Sources of Capital by the respondents

Sources of Capital	Frequency (f)	Percentage (%)	Valid Percentage (%)	Cumulative Percentage
From Husband	27	28.7	28.7	28.7
Relatives	21	22.3	22.3	51.1
Friends	5	5.3	5.3	56.4
Personal Savings	40	42.6	42.6	98.9
Borrowing	1	1.1	1.1	100.0
Total	94	100.0	100.0	

Source: Field Survey 2020

Of a particular importance to draw attention is the source of capital to the sampled housewives. It is discovered that, 28.7% of the sampled housewives source their capital from their husbands, 22.3% source their capital from their relatives, 5.3% source their capital from their friends, 42.6% source their capital from their personal savings and 1.1% source their capital from borrowing either from government, friends and well wishers.

Table 7: Respondents Access to Government loan

Government Assist	Frequency (f)	Percentage (%)	Valid Percentage (%)	Cumulative Percentage
Yes	5	5.3	5.3	5.3
No	89	94.7	94.7	100.0
Total	94	100.0	100.0	

Source: Field Survey 2020

The table above indicates that only 5.3% of the respondents are able to access government loan, the remaining majority of 94.7% are not able to access government loan.

Table 8: Does the Respondents have Adequate Market for his/her product?

Adequate Market	Frequency (f)	Percent (%)	Valid Percent (%)	Cumulative Percent
Yes	79	84.0	84.0	84.0
No	15	16.0	16.0	100.0
Total	94	100.0	100.0	

Source: Field Survey 2020

Evidence shows that 84.0% of the sampled housewives have adequate and sufficient market for their products and they are realizing appreciable returns. (The table below) **Table 9: Has the profit contributed towards your Economic Balance?**

Economic Balance	Frequency (f)	Percent (%)	Valid Percent (%)	Cumulative Percent
Yes	84	89.4	89.4	89.4
No	10	10.6	10.6	100.0
Total	94	100.0	100.0	

Source: Field Survey 2020

It is noted that the profit or returns realized has been contributing immensely towards the socioeconomic balance (89.4% of the sampled housewives).

Table 10: Problem Encountered by Self Employed Women in Katsina State

Type of Problem	Frequency (f)	Percent (%)	Valid Percent (%)	Cumulative Percent
	24	25.5	25.5	25.5
Insufficient Capital	44	46.8	46.8	72.3
High Cost of Production	13	13.8	13.8	86.2
Inadequate input available	6	6.4	6.4	92.6
Lack of loan	7	7.4	7.4	100.0
Total	94	100.0	100.0	

Source: Field Survey 2020

The table above shows that 25.5% of the respondents do not encounter any problem in their businesses, 46.8% are have problem of insufficient capital, 13.8% are have problem of high cost of production, 6.4% of the respondents have problem of inadequate input available and 7.4 have problem of lack of loan. **Chi- Square Test**

H₀: Self employment among women in Katsina Metropolis does not depends on their reasons for business

H₁: Self employment among women in Katsina Metropolis depends on the reasons for business

N	Df	P-value	Significant
94	60	<u>72.589</u>	<u>0.05</u>
		<u>0.128</u>	<u>Not significant</u>

Source: Computer Output

From the analysis of the output, it shows that the P-value (0.128) is greater than the critical value (0.05), therefore the result is not significant which means we are therefore accepting the null hypothesis that is: Self employment among women in Katsina Metropolis does not depend on their reason for businesses.

Conclusion

Housewives within the age range of 20 to 46 years in Katsina state are really into self employment businesses with a lot of commitment towards reducing the rate of their dependency and achieving good living standard.

It is observed that, the level of education among housewives in the state is improving with more mass literacy schools, vocational training centers and Islamiyya schools. The conclusion here is that, besides their various business endeavors, they could still strive for education which would further empower them to cope with their self employed businesses.

Housewives source their business capital from informal means and not from either financial institution or government. In fact, government assistance towards improving self employment among housewives through providing capital, tools, vocational and consultative assistance is very minimal, which eventually poses a lot of financial and other problems.

Adequate and sufficient market for the products and services provided by the housewives exist, but given their inadequate business skills and training, insufficient capital and the overall financial difficulties in the country, they are not able to satisfy the market.

The contribution of self employed housewives in Katsina state is immense and has helped a lot in improving the lives of the family, reducing dependency, increasing employment and overall development of the sampled area. It is only in research that these findings could be revealed since self employment is an informal activity that is not always captured in official reports.

Lastly, chi- square test conducted to test whether self employment among women in Katsina Metropolis depends on the reasons for businesses or self employment among women in Katsina Metropolis do not depend on their reasons for businesses. The result (chi-square test) shows that self employment among women in Katsina Metropolis does not depend on their reasons for businesses.

Recommendations

The study offers the following recommendations which are of veritable importance in improving self employment among housewives in Katsina Metropolis and Nigeria.

1. Government should pay moiré attention to self employment among housewives due to their positive socio-economic multiplier effects. That should be in the form of vocational training, provision of tool and other incentives
2. It is also suggested that loans should be provided to the housewives with little or no interest. That would go a long way in encouraging, and attracting women as well as stimulating self employment.
3. Housewives should not relent in getting themselves in one economic activity or the other. This would help in further suppressing the earlier traditional and cultural belief that has long been rendering women dependent. Where necessary, they should put heads together to run some businesses.

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ECONOMIC ASSESSMENT OF THE IMPACT OF POVERTY ALLEVIATION PROGRAMMES ON WOMEN IN NIGERIA 2000-2012

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Abstract

Poverty among women has attracted global attention, as the research findings show. Over 75% of the rural populations worldwide are poor and majority among rural poor are women. However, a number of treaties, conventions and poverty alleviation programmes have been put in place across the sphere in this regard. Poverty has been said to be when one or more persons fall short of a level of economic wellbeing deemed to constitute a sensible minimum either in some absolute sense or by the standard of a specific society. According to Lipton and Ravallion (1995), recent proofs propose that a poor person lacks stable income; access to fundamental services; voice in political life and opportunities for human development thus, social subordination and in exclusion. Most poverty alleviation programmes in Nigeria do not target women uneven access to employment, education and accessibility to basic social services leading to increasing women vulnerability to poverty in Nigeria. The article therefore suggest that alleviating poverty among Nigerian women will need a major re-ordering of human society; government poverty policies must target women as central to its policy making to have a positive change on societal development.

Keywords: Poverty, Poverty Alleviation

Introduction

Numerous studies have acknowledged that a sizeable average majority of the population in the developing countries is considered to be poor. The governments of these countries are facing difficulties in how to reduce poverty, as the challenges of poverty become a serious problem to the development thought and policy makers. Many policies and programmes have been put in place within countries on poverty reduction globally but the problems seem unresolved. Globally, poverty reduction has taken a central attention as the issues of poverty are exemplified by the significance attached to them in the Millennium Development Goals (MDGs) goal 1 and 3 in 2000 set to be achieved at a uniform bench-mark by 2015.

Over five decade into the independence of most States in Africa and the fifteen years target of Millennium Development Goals (MDGs) for 2015 were set to target halving global extreme poverty by 2015, the continent is said to have the highest poverty rate in the world. With high illiteracy rate, poor governance and ranked among the worst corrupt nation of the world, poverty has intensified leading to the under-development of the African continent (Nigeria inclusive).

In Nigeria, majority of the populace live in abject poverty with over capital income N 240 per annum. An overview of poverty trend in Nigeria from surveys conducted between 1980 and 1996 revealed poverty incidence for 1980 as 28.19%, 46.3% in 1985, 42.7% in 1992 and 65.6% in 1996 (Lawal, 2010). The economy is a developing one, as inflation is steady and a perpetual phenomenon, the economy produces a base line that has the majority of the people below it. Recent study in poverty in Nigeria shows that poverty is wide spread (FOS 1996, 1999, World Bank

1996). The FOS (1999), reports identifying women and children as the most vulnerable groups (UNDP 1997). The measure of poverty and deficits faced by the poor includes: lack of income, of which is lack of access to services and opportunities for human development; lack of voice in political life and decision making; social subordination and exclusion. Nigerian governments past and present have embarked on a number of poverty alleviation programmes to help reduce poverty and its related associated problems. The average Nigerian is far worse off than he was 54 years ago when the country achieved its political independence (Oluwatusin & Abolarin, 2015).

However, poverty alleviation programmes by government seek to address the general population than target a group, the implication is ignoring majority among the poor in policy planning. There is the need to put in important instrument and context of poverty reduction to contain an appropriate policy framework that relate to policy objectives of each group in the society.

Definitions of Terms

Poverty

Poverty is a global phenomenon which affects continents, nations and peoples differently. It affects people in various degrees. There is no nation that is absolutely free from poverty. The intensity and prevalence make the difference. Poverty can be conceptualized as an extreme state of social and economic deprivation. It is a situation where an individual or household fails to attain and maintain a specific level of wellbeing which is considered as the acceptable minimum standard of living in a given society. In a similar vein, (Olamejeye, 1994) defines poverty as a high degree of difficulty encountered in making ends meet. The consequences of poverty, according to (Nemedia, 2001:72), include: severe material deprivation, absence of recreational opportunities, lack of access to economic as well as political power, inferiority complex, isolation and social degradation. Poverty also breeds hunger, malnutrition, low-life expectancy, human and political rights abuse, diseases, illiteracy, ignorance, hopelessness, uncertainty and all those feelings that negate the resilience of the human spirit and blithe expectation of a better tomorrow. Moreover, there are poverty also creates frustration, loss of hope/prospects and value for life, loss of meaning for life and purpose of living. It also creates disillusionment about morality. Poverty makes people compromise on moral values or abandon moral values completely.

Poverty in Nigeria

Nigeria is said to be “a rich nation with poor population” because of her rich oil wealth but also referred to as the “poorest and most deprived OPEC country” (UNDP 1998). Nigeria is the largest oil exporter in Africa and occupies the seventh (7th) position in the world, yet her riches do not benefit the cash income of the average Nigerian, to provide for minimum requirement of livelihood in terms of food, water, medical care and basic education (Achor, 2001).

The United Nation Human Poverty Index in 1999 placed Nigeria amongst the 25 poorest nations in the world. The country is classified as one of the poorest in the world. A nation, whose 60% of the population is still living below the poverty line with 35% of the citizenry living in absolute poverty, is defined as poor by any measuring standard index. It is seen as a “*potentially rich country with a poor population*” (UNDP 1998, the World Bank 1999). Factors responsible for these are rapid population growth, corruption, bad governance and lack of political will to invest

in public oriented policies. The interaction of these variables places a large segment of the society in the vicious cycle of poverty. The rural and vulnerable groups, especially women seem to be affected more by worsening poverty situation in Nigeria. The economic well being of women has not improved significantly both as house hold level poverty and individual access to and control over resources. Most women in Nigeria suffer from illiteracy, high mortality rate, low income, and poverty. (CBN/WORLD BANK, 1999). The effect of these consequences shows the vulnerability of women and reasons for the high percentage of the poor among women in Nigeria.

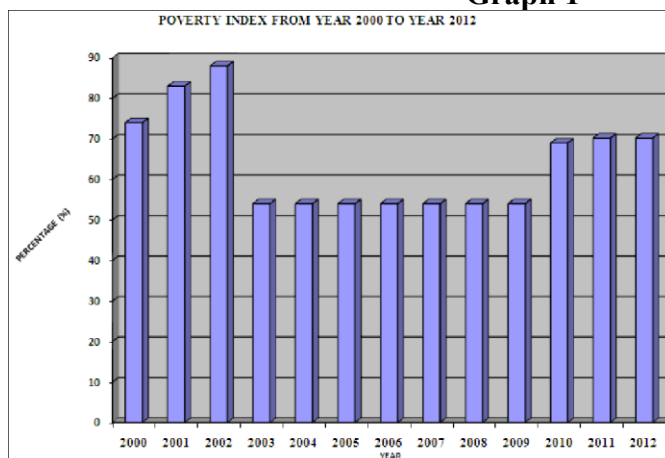
The poverty index of the country (2000-2012, NBS) is presented below;

Table 1: Poverty Index (Year 2000 -2012)

Year	Percentage
2000	74%
2001	83%
2002	88%
2003	54%
2004	54%
2005	54%
2006	54%
2007	54%
2008	54%
2009	54%
2010	69%
2011	70.2%
2012	70.2%

Source: National Bureau of Statistics (cited by Oluwatusin & Abolarin, 2012)

Graph 1



Source: National Bureau of Statistics, (cited by Oluwatusin & Abolarin, 2012)

The data presented in the chart above shows the rate of poverty from year 2000-2012 in Nigeria. In 2000, the poverty rate was 74%, it increased to 83.1% in 2001 while it increased to 88% in 2002. From 2003-2009, it maintained a constant percentage of 54% while it increased to 69% in 2010 and increased to 70.2% in 2011-2012 respectively. This however, shows that from 2000-2001; the poverty rate increased with a percentage difference of 9% and between 2001-2002 was 5%. There was economic degradation until 2003-2009, where it maintained a constant percentage of 54% for 7 years. This implies there is a slight incline in the economy stability until 2010 when it moved up by 15%. Again, in 2010-2012, the rate increased by 1.2% with a slight change in the economy compared to the previous year. The poverty range between 2000 and 2012 is 3.8%. This shows that the economy is not fast growing and it has negative effect on per capital income per head.

From the above, poverty in Nigeria used to be significant despite high economic growth. Nigeria has one of the world's highest economic growth rates but she ranks 153rd position out of 186 countries (2013 UN Human Development Index).

The Status of Women and Poverty in Nigeria

In Nigeria, statistics on poverty indicates that 65% of poor Nigerians living below the poverty line are women. Most of the women reside in rural areas and are the power behind the agricultural economic activities in these areas. The survey carried out in 2009, confirms the result by the Ministry of Women Affairs survey and shows that 70% of Nigerian women are engaged in agriculture that contributes a reasonable percentage of the country's economy (NBS/CBN, 2009). Available data indicates that majority of the poor are located in the rural areas and more than half of the populations in the rural areas are women. Also, the rural Nigeria is characterized by lack of access to necessary infrastructure and economic opportunities. In these areas majority women lack basic structures (education, health facilities, roads, electricity among others) to help perform their duty effectively, further adding burden to their responsibilities. A survey in 1992 on poverty in rural Nigeria shows that, 46.4 million Nigerians were living in absolute poverty out of which 80.2% or 37.7 million are living in rural areas (Ogwumike, 1996). This can be attributed to the marginalization of the rural areas through urban biased development policies; the concentration of government at the centre is largely responsible for more development in the urban areas than rural areas and reason for high poverty incidence in the rural areas. A study on agricultural production in Nigeria shows that Nigerian women have access to only 10% land ownership, but contribute 70% in agricultural work, 90% in food processing, 60% in distribution and marketing of agricultural output, 87% of those employed in the informal sector and constitute 65% of those living below the poverty line (NBS/CBN, 2010). Furthermore, women do not have equal opportunity to participate in politics and are marginalized in the decision making process with only 7.7% seats in legislative arm of government, make them have little or no voice in decisions making processes and policy making that will affect their lives.

It can therefore be concluded that, programmes and policies on poverty reduction among millions of Nigerians have little consideration for women, thus have not impacted on women to help alleviate poverty among them. Most policies and programmes on poverty alleviation which have been in place since independence and no specific programme targeted directly towards women except Better Life for Rural Women Programme. This was the first or among the first programmes

introduced in Nigerian history that were specifically to target women and which also brought high hopes and great expectations for women. It was initiated by the then first lady late Maryam Babangida. The other programme is the Family Support Programme initiated by Maryam Abacha it had consideration for reducing poverty among the women. It also recorded a little success as previous programmes before it.

Government and Some Poverty Alleviation Programmes in Nigeria

There have been attempts at poverty alleviation by government in order to make life comfortable for the citizenry and thereby reduce the incidence of poverty, all to no avail. Most notably are the following programmes:

- 2001: National Poverty Eradication Programme (NAPEP): to replace the previously failed Poverty Alleviation Programme. The regime under Rtd. General Olusegun Obasanjo signed a blue print for the establishment of a National Poverty Eradication Programme (NAPEP) in 2001 and the Universal Basic Education (UBE) aimed at reducing poverty and improving the quality of education.
- 2007: 7-point Agenda: On assumption of office on 29th May, 2007, President Umaru Musa Yar'Adua, GCFR, rolled out his election covenant with the people of Nigeria, the Seven Point Agenda. Since then, the Agenda have been properly conceptualized and comprehensively articulated and the implementation strategies adequately layed, to ensure the realization of Vision 20:2020. Towards achieving public information and enlightenment, the Nigeria High Commission, London, courtesy of www.nigeriafirst.org, decided to publish and place on its website, an overview of the Seven Point Agenda; however, with a strong slant on issues and policy challenges. Hereunder, therefore, is an updated summary of the key aspects of the Seven Point agenda:
Transportation sector, Power and Energy, Food Security, National Security Niger Delta and Energy Security, Education and Human Capital Development, Land Tenure Reform, Home Ownership, and Wealth Creation.
- 2010: Transformation Agenda. The transformation agenda initiated during Goodluck Ebele Jonathan's Administration refers to strengthening government institutions to facilitate effective coordination of fiscal monetary policies for effective and optimal performance.
- 2011- 2016: Youth Enterprise with Innovation in Nigeria (YouWiN!)- Programme Impact Evaluation, 2011- 2016. Youth Enterprise with Innovation in Nigeria to support enterprising youth (between ages 18 and 40) to establish their own businesses that will enable them employ others. It was a large scale national business plan competition for young entrepreneurs in Nigeria. The programme was collaboration between Nigeria's Ministry of Finance, Ministry of Communication and technology, and the Ministry of Youth Development with support from Department for International Development (DFID) and the World Bank. The programme's objective was to encourage innovation and job creation through the establishment of new businesses and expansion of existing businesses.

Also being a signatory to the UN inspired Millennium Goal of halving global poverty by 2015, Nigeria was forced to specifically embrace Poverty Reduction Strategy Process (PRSP) which was hoped will eventually bring its anti-poverty efforts into the main stream of the new global thinking, as fighting poverty needs to be driven by some acceptable principles. Policies on poverty reduction

must incorporate women at the heart of the policy in order to bring about reduction in poverty within states and international level.

In all the policies and programmes above adopted by the various past governments, none of these policies or programmes impacted positively and directly on women.

Conclusion

Women are generally considered to be at the lowest rung of the poverty in Nigeria like many other states across the globe and thus need programmes and policies that could help alleviate their status. Despite Nigeria's plentiful human and natural resources in agriculture, oil wealth etc. and poverty is widespread in the country and has been on the increase since the 1980s. 70 percent of Nigerians are classified as poor and 35 percent of them live in absolute poverty; poverty is severe in rural areas, where up to 80percent of the population live below the poverty line and lack basic social services. Research findings have shown that women and households headed solely by women are often the most chronically poor groups and live within rural communities, where rural infrastructural development in Nigeria has long been neglected. The policies and programmes adopted by various past administrations have failed to eradicate or reduce the women's extreme poverty in the country.

Recommendation

In view of the findings above, that various policies and programmes adopted in the country failed to eradicate or even reduce women's extreme poverty, the following recommendations are made:

- Policies and programmes and investments on health, education, power and water supply in rural areas will go a long way in reducing poverty in the rural areas and impact positively on women.
- Government must have the political will to carry out programmes on poverty alleviation to a logical conclusion, and economically reduce unemployment, increase wages in formal and informal sectors with particular emphasis on women.
- Policies targeting poverty in women in particular as well as in all sectors is a way out in reducing poverty than focusing on specific or selected sectors at a time.
- Also the need to have a policy law on poverty alleviation will allow for continuity of programmes that will allow for long term plan and focus on poverty reduction; this could lead to poverty reduction and development of women and the country at large.
- Hard work should be the watchword of every Nigerian particularly women in order to eradicate or alleviate poverty in our country.

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EFFECTIVENESS OF OFFICE FUNCTIONS PERFORMED BY OFFICE TECHNOLOGY AND MANAGEMENT GRADUATES EMPLOYEES AS APPRAISED BY EMPLOYERS IN NORTH-WESTERN STATES OF NIGERIA

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Abstract

This study was aimed at appraising the effectiveness of office functions performed by office technology and management graduates employees in North-Western Nigeria. Two research questions guided the study and two null hypotheses were tested at 0.05 level of significance. The population of the study comprised 384 employers of OTM graduates employees in North-Western states of Nigeria. Thirty-Six questionnaire items relating to administrative and personnel functions were developed and validated by experts. The internal consistency reliability of Pearson Product Moment Correlation Coefficient was 0.90 and 0.76 for sections A and B respectively. Mean ratings and standard deviation were used to analyse the research questions and z-test was used to test the null hypotheses. The results of the analyses revealed that employers in the North-Western States of Nigeria rated OTM graduate employees good at both two functions. The two null hypotheses were rejected. Based on the findings, it was recommended that OTM should intensify training on all departmental/professional course units, and senior lecturers of the department should be supervising/couching new lecturers to strictly adhere to all aspect of the curriculum among others.

Keywords:

Introduction

Office Technology and Management (OTM) programme is the new nomenclature for secretarial studies offered in Nigerian polytechnics. The programme came into being in 2004 in response to persistent calls by business educators and employers, that the time to change the curriculum of the secretarial studies had long past (Maduabuchi, 2008). The aim of OTM programme as stipulated by the National Board for Technical Education (2004) is to produce graduates who should fit properly into the office of any computerized organisations and perform professionally the functions of a secretary. The functions, among others, include relating the functions of the office to the whole organisation, attending meetings and providing information as may be required, making accurate records of proceedings, filing and retrieving information, taking appropriate action independently when faced with challenging secretarial office problems, showing personal qualities and attributes that are conducive and co-exist with the work group.

These functions are in line with the Federal Republic of Nigeria (2004) objectives of polytechnic education which state that OTM programme should provide trained manpower in the applied sciences, technology and business particularly at craft, advanced craft and technical levels. They also state that the programme should provide technical knowledge and vocational skills for agricultural, commercial and economic development; and give training that impart the necessary skills to individuals who shall be economically self-reliant. On graduation, the OTM graduates would occupy position of confidential secretary or office manager, and be expected to perform office function of administration, personnel management, records keeping, human relations and information and communication technology. It was based on this line that National Board for

Technical Education (NBTE) structured the curriculum to encompass courses in general education, foundation studies, professional courses and Supervised Industrial Work Experience Scheme (SIWES).

It is anticipated that the curriculum would sufficiently equip the graduates for office work. The training is also expected to create a harmonious working environment and relieve executives of some office routine activities. The graduates of the OTM programme are termed as secretaries. A secretary is a trained employee who acts as an assistant to an executive, possessing mastery of office skills and the ability to assume responsibility without direct supervision. Ajufo (2017) maintains that a secretary is one who plans, organizes and controls the office taking into consideration time limits and priorities. He deals with emergencies, gathers facts and presents them meaningfully, assists in decision making, keeps interruptions to a minimum level by screening visitors and maintaining schedules of executives' time including calendar of meetings, projects and itineraries. Secretaries serve as a pivot of any organisation, and hence, they may be employed in public, private and tertiary institutions.

Statement of the Problem

As reliance on technology continues to expand in offices, the office routine tasks of OTM graduates (Secretaries) have rapidly increased. A secretary today is supposed to perform varieties of administrative, personnel and clerical tasks like coordination of office administrative activities, planning and scheduling meetings, appointments and information and communication technology. Secretaries handle mail services, information technology resources, provide high level administrative support, arrange conference and supervise other office staff.

However, the relevance of any educational programme has been viewed as the fitness of the programme to meet the needs of the society and the impact that its graduates make on their places of work (Olaitan, 2009). Due to the importance of secretarial functions to national development, secretaries can be found in all types of public and private organisations and from the small family concern to multi-national corporations. Personal observations on secretaries of Hassan Usman Katsina Polytechnic revealed that most of them lacked human relation proficiency. They are competent in word processing aspect of ICT only as against other aspects of ICT proficiencies. Similar problems may be encountered by secretaries in public services (Government Ministries). At times, executives complain of missing documents, delays in retrieving files/stored documents, rudeness to visitors, inability to compose secretaries routine correspondence, take minutes of meeting et cetera. In view of the fact that evidence of the appraisal of performance of the functions of OTM graduate workers is difficult to come by in polytechnics and government ministries in the North-Western Nigeria, the researcher is interested in appraising the level of efficiency of OTM graduate employees in their organisation, based on their employers' appraisal.

Literature Review

Appraisal as a concept is defined by Hornby (1995) as judgment of value, performance or nature of something or somebody. Appraisal depicts assigning numerical value to performance. In other words, in this context, it refers to determining secretaries' strengths and weaknesses by their supervisors in office functions they performed. It is an impartial analysis and evaluation conducted

according to established criteria so as to determine the acceptability, merit or worth of the secretaries.

Many reasons may be poised on the needs of appraisal in any organisation. Nnabuike (2009) identifies the following: to detect employees strengths and weaknesses; to motivate individuals; to identify potential performance; to draw attention to present performance on the job in order to regard people fairly and to identify training and development needs.

Moreover, a secretary simply means a person who works in an office and manages the organisation. Bayo (2017) describes a secretary as a person employed to write letters, keep records and make business arrangements for another person and deal with other administrative matter of the organisation. The personnel are trained in the department of Office Technology and Management of Nigerian polytechnics. The aim of Office Technology and Management Programmed as described by NBTE (2004) is to equip students with secretarial/office skills for employment in various fields of organizational endeavour.

Secretaries performed various functions in an organisation. Amongst them are administrative and personnel functions. Administrative functions of a secretary involve organizing and controlling the organisational activities in order to achieve the objectives of the organisation. These include supervision of junior staff and ensuring that schedules are being accomplished, directives and assigned tasks completed within the time span and ensuring that all the materials needed for performing any particular job are available at the right time. Odiava (2018) highlights the administrative functions of the secretary to include among others maintaining files and personal records, reviews, organizes and maintains files, monitors attendance including sick leave, annual leave and vacation leave, compiles and records data for computer files, develops and implements new departmental forms, recommends and implements changes in correspondence sent to the public, et cetera.

On the other hand, personnel functions of a secretary include receiving, sorting and distributing mails within the organisation, composing replies to correspondences on behalf of the executive, identifying and solving routine and non-routine problems by applying professional skills and techniques in order to develop the variety of ideas and modify situations (Shuaibu, 2018).

Purpose of the Study

The main purpose of the study is to determine employers' ratings of OTM graduate employees performance of their various office functions in North-Western states of Nigeria. Specifically, the study seeks to appraise the effectiveness of OTM graduate employees performance in administrative and personnel functions.

Research Questions

The following research questions guided the study:

1. How do employers in North-Western states of Nigeria rate the performance of administrative functions of OTM graduate employees?

2. How do employers in North-Western states of Nigeria rate the performance of personnel functions of OTM graduate employees?

Research Hypotheses

The following null hypotheses were tested at 0.0 level of significance:

1. Employers in North-Western states of Nigeria do not differ significantly in the mean ratings of OTM graduate employees on administrative functions as a result of gender.
2. Employers in North-Western states of Nigeria do not differ significantly in the mean ratings of OTM graduate employees on personnel functions as a result of type of establishment.

Methodology

This study adopted descriptive survey research design due to the fact that opinions of the employers of OTM graduate employees in North-Western states of Nigeria were sought so as to get information in respect of their performance in office functions. Nworgu (2016) defines descriptive survey research as one in which a group of people or items are studied by collecting and analyzing data from only a few people or items considered to be representative of the entire group. The area of study was the polytechnics and government ministries of North-Western states of Nigeria. The population of the study included all executives in government ministries and polytechnics whose positions entitled them to have a confidential secretary. The total population of the study was 384 executives made up of, 255 from government ministries and 129 from the polytechnics. The entire population was used for the study because it is manageable and it gives greater reliability (Cohen, Mannion & Morrison, 2008). Five point Likert type questionnaire consisting of 36 items was used to collect data from the sample of the study. The instrument was validated by a panel of experts. The researcher used Pearson Product Moment Correlation Coefficient to calculate the reliability coefficient and 0.90 and 0.76 respectively were obtained, which were adjudged to be reliable. The researcher with the help of two research assistants distributed and retrieved the filled copies of questionnaire. Descriptive statistics of arithmetic mean and standard deviation were used to analyse the research questions, and inferential statistics of z-test was used to test the null hypotheses. The decision rule adopted for the research questions is to consider any item with mean ratings equals to or greater than 3.00 as good and any mean ratings less than 3.00 as fair and would not be considered

Results

Research Question 1: How do employers in North-Western states of Nigeria rate the performance of administrative functions of OTM graduate employees? Analysis of question 1 is presented in Table 1

Table 1: Employers mean ratings of OTM graduate employees on administrative functions

S/N	Items on Administrative functions	Mean	S.D	Remarks
1.	Supervise junior staff	3.35	0.95	Good
2.	Ensure work schedule is accomplished	3.32	0.92	Good
3.	Ensure availability of materials for performance.	3.12	0.97	Good
4.	Compose and type letters	3.23	1.03	Good
5.	Compose and type office memo	3.15	0.93	Good
6.	Prepare disciplinary notices	3.05	0.91	Good
7.	Interview visitors calling in the office	2.98	1.01	Fair
8.	Keep attendance and personnel records	3.07	1.01	Fair
9.	Prepare invoices for accounts payable	2.94	1.03	Fair
10.	Monitor attendance, sick leave et cetera	2.92	1.03	Fair
11.	Maintain proper relations with public	3.06	1.04	Good
12.	Maintain proper relations with staff	3.09	1.10	Good
13.	Make referral duties with tact and diplomacy	2.97	1.04	Fair
14.	Receive telephone calls	3.02	1.04	Good
15.	Implement change in correspondences	2.98	1.01	Fair
16.	Prepare departmental records	3.01	1.03	Good
17.	Review, organize and maintain files	3.09	1.06	Good
18.	Maintain outstanding effort free work	2.92	0.98	Fair
19.	Prepare annual inventory report	2.95	1.02	Fair
20.	Participate in budget preparation	2.85	1.04	Fair
Cluster Mean		3.05	1.02	Good

As presented in Table 1, twelve tasks related to administrative functions were rated “good” based on the fact that their mean ratings fell within the range of 3.00-3.99. Eight items related to administrative functions were rated “fair” because their mean ratings fell within the range of 2.00-2.99. However, the cluster means for all the items of administrative functions 3.05, which fell within the boundary/real limit of “good”. It could be inferred that employers in the NorthWestern states of Nigeria rated OTM graduate employees good on administrative functions.

Research Question 2: How do employers in North-Western states of Nigeria rate the performance of personnel functions of OTM graduate employees? Analysis of question 2 is presented in Table 2

Table 2: Employers mean ratings of OTM graduate employees on personnel functions

S/N	Items on Personnel Functions	Mean	SD	Remarks
21.	Assign job schedule to junior staff	3.33	0.93	Good
22.	Train junior staff	3.19	0.91	Good
23.	Receive, sort and distribute mails	3.17	0.99	Good
24.	Compose replies to correspondences	3.02	0.98	Good
25.	Identify and treat routine problems	2.97	0.99	Fair
26.	Produce flyers	2.77	0.96	Fair
27.	Screen telephone calls	2.85	1.02	Fair
28.	Prepare itineraries	2.80	1.00	Fair
29.	Control skill inventory	2.88	0.92	Fair
30.	Familiarity with organisations jargons	3.00	1.00	Good
31.	Familiarity with organisations requirements	3.11	1.04	Good
32.	Familiarity with organisational policies	3.13	1.00	Good
33.	Maintain movement register	3.03	1.00	Good
34.	Understand minuting	3.08	1.02	Good
35.	Handle file action page appropriately	3.15	1.04	Good
36.	Label all official records	2.99	1.01	Fair
Cluster Mean		3.03	1.00	Good

The information in Table 2 indicates that OTM graduate employees in the North-Western states of Nigeria were rated “good” in ten items related to personnel functions. Their mean ratings fell between 3.00-3.33. Also, six tasks related to personnel functions have the mean ratings between 2.77-2.99 which signifies “fair” ratings. However, the cluster mean was 3.03 which fell within the boundary/real limit of good. Therefore, it could be inferred that employers of OTM graduate employees in North-Western states of Nigeria rated them good on personnel functions.

Test of Hypotheses

Hypothesis 1: Employers in the North-Western states of Nigeria do not differ significantly in their mean ratings of OTM graduate employees on administrative functions as a result of gender.

To determine the level of significance between the two groups, the mean values were compared.

Table 3: Z-test analysis of male and female employers of OTM graduate employees means ratings on administrative functions

Group	N	Mean	SD	DF	Lev. Of Sig.	Z-cal	Z-crit	Decision
Male	254	3.10	0.66	340	0.05	3.50	1.97	Rejected
Female 88	2.83	0.48						

The calculated value of the computation stood at $z=3.50$ at 0.05 level of significance and at $df=340$, ($Z\text{-cal}=350$, $Z\text{-crit}=1.97$, $p=0.05$, $df=340$). This is shown in table 3. Based on this, the null hypothesis is rejected and therefore there is significant difference in the mean ratings of OTM graduate employees in North-Western states of Nigeria.

Hypothesis 2: Executives in government ministries in the North-Western states of Nigeria do not differ significantly from their counterparts in polytechnics in their mean ratings of OTM graduate employees on personnel functions.

To determine the level of significance between the two groups, the mean values were compared

Table 4: Z-test analysis of executives of government ministries and polytechnics OTM graduate employees mean ratings on personnel functions

Group	N	Mean	SD	Df	Lev. of Sig.	Z-Cal	Z-Crit	Decision
Govt Min.	233	54.3	10.8	340	0.05	2.61	1.96	Rejected
Polys.	109	57.3	12.6					

The calculated value of the computation stood at $Z\text{-Cal}=2.61$ at 0.05 level of significance and at df of 340 ($Z\text{-cal}=2.61$, $Z\text{-crit}=1.96$, $p=0.05$, $df=340$). This is shown in Table 4. Therefore, the null hypothesis is rejected and concluded that there is significant difference in the mean ratings of OTM graduate workers by employers in government ministries and polytechnics in NorthWestern states of Nigeria on personnel functions.

Summary of Major Findings

The following are the findings of the study as obtained from the results of the analysed data:

1. The employers in government ministries and polytechnics in North-Western states of Nigeria rated the performance of OTM graduate employees on administrative and personnel functions as good.
2. There was significant difference in the mean ratings of OTM graduate employees by employers of government ministries and polytechnic in North-Western states of Nigeria on administrative functions as a result of gender.
3. The ratings of OTM graduate employees in North-Western states of Nigeria on personnel function by employers differed significantly by employers in government ministries and polytechnics.

Discussions of Results

The results of the analysis of the data relating to administrative functions of OTM graduate employees by employers in North-Western state of Nigeria revealed that the employees performed as expected. However, some items like interviewing visitors calling in the office, preparing invoices for accounts payable, monitoring attendance and sick leave were rated fair by the employers. The employers were also not satisfied on how the OTM graduate employees performed the functions of referral with tact and diplomacy, recommending and implementing changes in correspondences, maintaining outstanding error free work and participating in budget preparation.

This confirms the findings of Agboola (2016) that HND secretarial studies graduates are not effective in virtual office competence, which signifies administrative functions in this study.

Employers of OTM graduate in North-Western state of Nigeria were satisfied on the performance of the secretaries in personnel functions. Personnel functions as posited by Shuaibu (2018) involves composing replies to correspondences on behalf of the executive, identifying and solving routine and non-routine problems et cetera. This saved the executive time and stress; and went a long way in uplifting the image of the organisation.

Conclusion

Based on the findings of this study, it could be concluded that the education and training given to OTM graduates in North-Western states polytechnics in various course units are adequate to prepare them effectively for the world of work. The executives were satisfied with their performance and therefore the OTM curriculum objectives of preparing the graduates to effectively function in any organisation as a secretary was achieved.

Recommendations

Despite the satisfaction shown by the employers in these two aspects, the following recommendations are advanced:

1. Some of the administrative and personnel functions were not satisfied by the executives. The OTM graduate employees should be sponsored for short training/workshops organised by professional bodies so as for them to acquire the skills to perform efficiently in such aspects.
2. The OTM departments should intensify training on all departmental course units and stick to the curriculum provisions more especially on practical aspects.
3. Senior Lecturers in the OTM departments should as a matter of importance be monitoring the junior lecturers to ensure strict compliance with curriculum contents.
4. The employers of Labour should be given feedback to OTM departments on the strengths and weaknesses of the OTM graduates so that remediation action could be taken to serve the nation effectively.

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MORPHO-SYNTACTIC ERRORS IN ENGLISH AMONG DIPLOMA STUDENTS OF HASSAN USAMAN KATSINA POLYTECHNIC, KATSINA

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Abstract

Errors are inevitable aspects of language learning process. They manifest at all the levels, i.e. vocabulary, syntactic, semantic and phonological levels. They can be surmounted however through remediation. The paper was set out to examine errors of morpho- syntax in English among diploma I students of Institute of Education, Ahmadu Bello University, Zaria. A data derivation technique was used in which the learners were given writing tasks. Through this approach, a number of morpho-syntactic errors were generated and analysed using the Error Analysis (EA) technique. The findings indicated that the learners had deficiencies about the inflectional system of the English verbs. They included some errors of overgeneralisation, omission and substitution. The causes of the errors were identified as interlingual and pedagogical interferences. A number of suggestions on how to overcome the errors were provided.

Keywords:

Introduction

Second Language (L2) learning can be challenged by the learner's First Language (L1) and poor instructional background. Research in Applied Linguistics has shown that inter-language is the greatest cause of the learning difficulties in L2. Odlin (1985:48) asserts that the features of a new language constitute 'no essential difficulty' in L2 learning but the basic problems arise out of the L1 'habits'. Poor instructional or pedagogical background in L2 learning can be caused by lack of effective teaching, instructional aids and good methods. The operational concepts in the paper include: Morpho-Syntax, errors, interlanguage, pedagogy, error analysis, contrastive analysis, overgeneralisation, omission, substitution, L1 and L2.

In linguistic terms, morpho-syntax is a derivative concept consisting of morphology and syntax. Morphology studies the internal structure of words using processes such as compounding, prefixation, suffocation and infixation, etc. There are two major areas subsumed in morphology: Derivation and Inflection. Derivation is concerned with addition of suffixes or prefixes to words to the effect that the grammatical categories of the words change, e.g. a noun becoming a verb or a verb becoming an adjective. On the other hand, inflection is concerned with addition of suffixes to words without changing the grammatical classes of the words. Inflection could change the tense, number (singular, plural) or degree (comparative, superlative) of a word e.g. pass - passed, paper - papers and clever - cleverer. Syntax is the study of how words are arranged in a linear fashion based on certain rules of a language to form sentences that are meaningful. The term morpho-syntax falls on the boundary between morphology and syntax. Morpho-syntactic errors, therefore, are morphological deviations at syntax level. They include errors of none or misuse of inflectional elements, i.e. the tense, plural and 3 person markers.

Inflectional Affixes

Inflectional affixes are morphemes (bound) attached to the end of a word as in *boys, mangoes, copies, parted*. The inflectional elements, i.e. - es, -ies and -ed, are broadly referred to as affixes

and narrowly known as suffixes. In English, these inflectional elements are attached to the root words to mark plural nouns, tenses and 3rd person.

1. The Examination Unit *indicts* the offenders (-s marking 3rd person).
2. The Examination Unit *has indicted* the offenders (marking present perfect).
3. The Examination Unit *prosecuted* the offenders (marking simple past tense).

The -s attached to the verb ‘indicts’ is in agreement with the subject of the sentence (‘Examination Unit’) in the first sentence. In the second sentence, the tense is in present perfect form; thus, the main verb (prosecute) is inflected with the morpheme ‘-ed’ preceded by the verb to have’ (‘has’) in an auxiliary position. It is an obligatory rule of English that a finite regular verb occurring in present perfect, past perfect or future perfect tense selects a participial form marked by -d or -ed depending on the structure of the verb.

1. They have *closed* my door.
2. Mrs. Manga has *cooked* a rotten food.
3. You will have *requested* some money before our arrival.

Tense inflection in English presents an enormous challenge to nonnative speakers. In Nigeria, for instance, several research have pointed to this fact. Adetunji (1993:02), citing Durojaiye (1970), Tomon (1971) and Akonobi (1976), indicates that the highest number of errors committed by some selected Yoruba and Igbo students of English were errors connected with the inflectional aspects of the verb. Similarly, Jowitt (2005:117) claims that verb inflections in English ‘constitute the greatest stumbling block’ among L2 (second language) learners of English in Nigeria.

Concept of Error

In linguistic terminologies, an error is described as a specific deviation from a particular aspect of language it is normally seen to be an inevitable part of the language learning process. However, an error should be distinguished from a mistake. A mistake can be identified and corrected by a language user. It usually results from men’s emotional upset, slip of the tongue, carelessness: (Omojuwa, 1979:176). On the other hand, an error arises from lack of linguistic competence in the target language. Brown, (1980) views error as a noticeable deviation from the native; and discourse patterns which reflects the inter-language learner’. According to Corder (1981:67), it means an ‘error or no effort on the part of the learner at the mastery of the target language’.

Error Analysis and its Relevance in Language Learning

Error Analysis (EA) is a research tool applied at which a learner expresses his message by means of rules used by the native speaker of the target language in three ways. Firstly, it is used to forward to learn sign of failure but as a positive source of improver used by a teacher to identify the area where the rule is effective. Thirdly, the teacher can also plan some rules to convert the errors identified to enhance his teaching technique.

Stages in Error Analysis

Scholars have classified the stages in Corper (1973:126) identifies three steps as recognition description Omojuwa (1979:77) also identifies tl terminological variations from Omojuwa’s identification, classification and explanation Sta (1963:210) presents five stages as recognision, reconstruction, classification and explanation.

Methodology and Analytical Techniques

The data elements in the paper were general assignment administered to Diploma I student Education, Ahmadu Bello University, Zaria. The currently in Diploma II, were admitted for the 201: Library and Information Science. Like students of the Institute, the students did a course in Basic Communication Skills. This is the ground that to formulate the data in the work. For descriptive purpose, some sentences were also derived from other Nigerian languages through the native speakers, to enrich the discussion.

The test and assignment were designed in a way to stimulate the subjects use of verbal inflections in English. They were carried out at different times involving the whole class. The topic of the test was titled 'How I was Disappointed by a Trusted Friend Last Week. As a narrative piece, the use of verbal inflections was considered to be instrumental in the task. For the assignment, the subjects were given three sentences in simple future tense and they were asked to restructure them into simple present tense, present perfect tense, simple past tense and past perfect tense respectively. The total number of students was one hundred and four ($N=104$), i.e. 208 scripts with the test and assignment combined. Out of the number, 65 scripts were randomly selected and scanned. Thirty four (34) sentences were identified in the scripts as erroneous, i.e. containing lack of use or misuse of verbal inflections. The analytical procedure in the paper includes the following stages: recognition, classification, reconstruction, and explanation.

Presentation of Data

As mentioned earlier, the data materials were extracted at the sentence level using a test and an assignment. The sentences are presented below with the relevant words highlighted in italics. Also, the errors are classified and the sentences are reconstructed as corrected alternatives.

S/N

O	RECOGNITION	CLASSIFICATION	RECONSTRUCTION
1.	Ada <i>eated</i> delicious food.	Overgeneralisation, ed)	1. Ada <i>ate</i> delicious food.
2.	He <i>go</i> to school yesterday.	Substitution	2. He <i>went</i> to school yesterday.
3.	I <i>have play</i> football	Omission (-ed)	3. I have <i>played</i> football.
4.	Hassan <i>arrive</i> yesterday.	Omission (-d)	4. Hassan <i>arrived</i> yesterday.
5.	Sadiya have (sic) <i>arrive</i> .	Omission (-d)	5. Sadiya has <i>arrived</i> .
6.	Maryam have (sic) <i>play</i> game.	Omission (-ed)	6. Maryam has <i>played</i> game.
7.	The Pastor have (sic) <i>preach</i> the truth.	Omission (-ed)	7. The Pastor has <i>preached</i> the truth.
8.	She has <i>eat</i> in the school.	Omission (-en)	8. She has <i>eaten</i> in the school.
9.	He was always read in the morning	Omission	9. He always reads in the morning.
10.	The bird <i>fly</i> .	Omission (-s)	The bird <i>flies</i> .
11.	He <i>work</i> a home yesterday.	Omission (-ed)	11. He worked at home yesterday.
12.	Stella always <i>read at night</i>	Omission (-s)	12. Stella always <i>reads in the night</i>
13.	She <i>wash</i> in the night.	Omission (-es)	13. she washes in the night
14.	Hassan <i>go</i> to school.	Omission (-es)	14. Hassan goes to school
15.	She <i>cook</i> in the night.	Omission (-s)	15. She cooks in the night.
16.	She <i>eats</i> every day.	Substitution	16. She eats everyday.
17.	We have <i>play</i> football.	Omission (-ed)	17. We have played football.
18.	He <i>use</i> to I go to school before.	Omission (d)	18. He used to go school before
19.	She <i>like</i> to read medicine.	Omission (-s)	19. she likes to read medicine
20.	He has <i>go</i> 1 to school.	Omission (-ne)	20. He has gone to school.
21.	She always <i>wash</i> in the afternoon.	Omission (-es)	21. She always washes in the afternoon.
22.	She has <i>wash</i> her cloth.	Omission (ed)	22, She has washed her clothe.
23.	My friend has <i>pack</i> my money away.	Omission (-ed)	23. My friend has packaged my money away.
24.	I was not happy when he disappoint me.	Omission (-ed)	24. I was not happy when he disappointed me.

	He kick my younger brother last week	Omission (-ed)	25. He kicked my younger brother last week
26.	We were not allow to see him	Omission (-ed)	26. We were not allowed to see him
27.	I push him down when he came in	Omission (-ed)	27. I pushed him down when he came in.
28.	<i>I help</i> him to get to the room that time.	Omission (-ed)	<i>I helped</i> him to get to the room that time.
29.	He <i>seeked</i> assistance from me.	Overgeneralisation (-ed)	29. He <i>sought</i> assistance from me.
30.	The boy <i>slided</i> open the back door.	Overgeneralisation (-ed)	30. The boy <i>slid</i> open the back door.
31.	He <i>wearred</i> a black cloth	Overgeneralisation (-ed)	31. He <i>wore</i> a black cloth
32.	They must be stopping by the police	Substitution	32. They must be <i>stopped</i> by the police.
33.	He <i>sleeped</i> last night	Overgeneralisation (-ed)	33. He <i>slept</i> last night.
34.	He <i>waked</i> me in the night	Overgeneralisation (-ed)	34. He <i>woke</i> me in the night

Statistical values of the Data

Error type	Distribution	Percentage
Omission	25	73.55
Substitution	6	17.64
Overgeneralization	3	8.81
Total	34	100

The data entries, as above, covers a range of grammatical cannot be entirely accounted for in the paper because the focus is limited to verbal inflections, whose positions are highlighted in itences in 1.6. There are 34 inflectional errors codified as overgeneralization, omission and substitution errors, which are subsequently reconstructed as correct usages.

Overgeneralization errors

An error of overgeneralsaiton emanates from over – use of language rules, which seems like an extrajudicial case in human law. However, an extra-judicial case in human law is sometimes deliberately manipulated to upset justice for selfish ends. In the learning context, an over use of language rule is usually triggered by the learner’s incompetence regarding the language rule. Some instances of overgeneralization in the data include where the irregular verbs are treated as regular e.g. *eated*, *seeked*, *slided*, *wearred*, *sleeped* and *walked*. This was caused by over assumption that all English verbs derive their past and participial forms with -ed. English irregular verbs however form the past and participles by mutating the vowels or zero derivation e.g. *eat* - *ate*, *seek* - *sought*, *slide* - *slid* and *cast* - *cast*, etc.

Errors of overgneralisation regarding the verbal forms are not only restricted to English L2 learners but can also be noticed among other L2 learners. Munir (2001), using different languages speakers learning Hausa as L2, observes that the learners ‘overgeneralised all Hausa verbs by retaining the

basic form of the verb without any regard to their derivative features, which are in both shape and meaning different from the basic form’.

Omission Errors

An error of omission can be described as a manifestation of inability to use a particular linguistic component where it should be used. This constitutes the highest frequency (73.55%) in the data. It includes the failure to use the -d, -ed and -s for tense and third person marking respectively. This is often caused by the teacher’s inadequacy in the lesson or learner’s interlingual phenomenon, a condition whereby the learner applies the rules of his first language (Li) in English. This is also known as Li transfer.

Languages vary at the levels of lexis, syntax, semantics and phonology. Therefore, every language has distinct rules regarding what is grammatical or ungrammatical. What is acceptable in a given language may constitute a violation in another language. In English, the articles precede the nouns, in French, it is the reverse (Fromkin and Rodman, 1978). Interlingual theories argue that linguistic variations are the major causes of Li transfer. They assert that L2 learning becomes easier where there is similarity with Li and becomes much harder where the two languages diverge. The omission errors in the data can be described in terms of the absence of corresponding inflectional elements in Hausa similar to that of English (i.e. -d, -ed and -s). Hausa is non-inflectional with regards to tense, i.e. a Hausa verb is not inflected with -d or -ed to form a past tense as observed in English (Mansur, 2006). This is also typical of other Nigerian Mother Tongues (MTs).

Hausa

1. Bello *ya cijarabawar*.
(Verb)
(Bello passed the examination.)
2. Ta *tsaya*.
(Verb)
(She stopped.)

Igbo

1. Bello *gafereuleya*.
(Bello passed the examination.)
2. O *kwasiri*.
(Verb)
(She stopped.)

Yoruba

1. Bello *se aseyeqeninuidanwona’a*. (Verb)
(Bello passed the examination.)
2. *Oduro*.
(Verb)
(She stopped.)

Similarly, the range of the omission errors concerning the third person marker is another evidence of interlingual interference. The verbs ‘read’ and ‘fly’ ought to take the suffixes -s and ies respectively. An English lexical verb functioning as finite, in simple present tense, occurs

obligatorily with a suffix -s, -ies or -es depending on the nature of the verb. A lack of use or misuse of these inflectional variables constitutes an error of grammar in English.

Substitution Errors

An error of substitution occurs in a position where a wrong element is used in a slot for another element. This is usually caused mostly by pedagogical problems rather than L1 manifestation. Abdulkarim (2010), has also discovered that a number of linguistic errors committed by the subjects in her study were *methodological* and *pedagogical* in nature. For instance, a teacher who lacks a sufficient knowledge of English inflections or who uses inappropriate method of teaching, cannot guide the learners to master the suffixal patterns of English. Thus, the blemishes in the following sentences from the data can be linked to the learners' poor instructional background on the inflectional patterns of English.

1. *We have playing football
2. * We working very hard now.
3. * My husband have gone out.

Before analysing these sentences, there is a intricacy in distinguishing between an error of *or substitution*, which occur as correlatives in the problems have to be identified and discussed experience of the learners' levels of linguistic comp the discourse areas.

In sentence 1, the learner has wrongly used (marked by -ing) where a past participle (marked 1 What informs this is the English verb 'have' w auxiliary position, with the past participle of the 'played football'. The inflected variant with the -in is/was, are/were), instead of the verb 'to have' as in had'. Without good exposure to these complex r English, particularly at a lower level, may encounter selection of the English suffixes for the verbs.

Overcoming the Errors

An error is a symptom of learning deficiency, cure or remedy ought to be provided. Like the case without the right and prompt remediation, a degenerate chronically and may affect other areas of morphological problem simultaneously affecting writing and reading skills.

There are several strategies that can be a teacher to overcome L1 learner's linguistic deficiency category of the problems observed. With regards to the strategies may include a contrastive approach components of L1 and L2 are contrasted to expose differences between the two languages. Mansur (when L2 learners understand the areas of dissimilar) L2, they could be more conscious of the likely spots language. Another strategy is to prioritise the identify using drills, instructional materials, revision and multiple illustrations etc.

Conclusion

In conclusion, errors of morph-syntax are free L2 speakers of English in Nigeria, not only at the lo' the higher levels including undergraduates and graduates. The paper has examined different types of morph-syntactic by Diploma I students of institute of Education, Ahmadu Bello University, Zaria. The potential causes of the Errors such as interlingual and pedagogical, have been discussed alongside some remedies.

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ECONOMIC ANALYSIS OF THE IMPACT OF AGRICULTURE ON ECONOMIC GROWTH IN NIGERIA

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Abstract

Agriculture had been driving Nigerian economy to greater height, before oil discovery in commercial quantity. Since then, the sector has been suffering from serious neglect resulting to low performance and subsequently, increased importation of agricultural produce into the country. In recent years, efforts were put in place to restore the lost glory of the sector. To find out whether agricultural reforms count on the growth of Nigerian economy, this paper investigated the long run and causal relationships between Agriculture and economic growth in Nigeria. To achieve this objective, Johansen (1988) co integration approach and Granger Causality test were applied. The result of co integration test indicated negative relationship between Agriculture and economic growth in Nigeria. On the other hand the Granger Causality test showed no causality between Agriculture and economic growth in Nigeria. The paper recommends government intervention in providing adequate financial resources and technical assistance to farmers, developing an effective technology based monitoring mechanism to ensure successful implementation of agricultural development policies in the country. It further recommends substitution of all imported agricultural produce with the ones produced domestically to boost production and marketing of agricultural produce in Nigeria.

Keywords: Agriculture, Economic Growth, Causality, Cointegration

Introduction

Before oil discovery, Nigeria depended largely on agricultural production for food and raw materials for foreign exchange earnings. Over 75 percent of the country's labour force was engaged in agriculture, which provided employment to over 90 percent of the population. The dominant role of agriculture in foreign exchange earnings, paved way to petroleum exploration and exports. The country's economic strength was derived largely from abundant oil and gas reserves, constituting up to 99 percent of export revenues. In 1980 for instance, oil production accounted for two-thirds of the GDP and more than 80 percent of the total government revenues (FRN, 2008).

It is a known fact that, oil and gas sector attracted more investments from within and outside Nigeria, resulting to a serious neglect of other sensitive sectors of the economy, like agriculture, mining and manufacturing. There was a significant decline in the total contribution of agricultural sector to total GDP. Though, previous governments came up with revolutionary policies to restore the lost glory of agricultural sector, but to no avail.

Agriculture was the main source of foreign exchange in the 60s. Prior to independence; agriculture was prominent in the nation's economy contributing a significant portion to GDP.

The sectors contribution to GDP in 1960 – 1964 was 63 percent and 54 percent in 1965-1969. However, it continues to decline substantially from 1970. By 1974 it had declined to 33 percent and by 1993 it had sadly dropped to 8 percent. In spite of this progressive decline, the agricultural sector has remained resilient. It was just carelessly allowed to be overtaken by the oil sector since the period of the boom that occurred in the 1970s.

It is terrible to note that, greater proportion of food consumed in Nigeria for the last three decades is imported into the country from Asia and North America. Even though, governments at all levels spend heavily on agricultural subsidy, in addition to huge amount of money spent on agricultural researches and development. A bank for agriculture was equally established to cater for financial needs of farmers. Moreover, government pursues policies that will encourage consumption of local agricultural produce, at the same time trying to control imports. Sadly, the policies hardly make impact on productivity and consumption of agricultural produce. The need to empirically investigate the impact of agriculture on economic growth in Nigeria is necessary to avail government and stakeholders with adequate information for policy adjustment if the need be. To achieve this objective, this paper investigated the impact of agriculture on economic growth in Nigeria. Time series data for a period of thirty nine years from (1980 – 2019) was collected. Granger causality and Johansen Cointegration was applied in investigating causal and long run relationships between agriculture and economic growth in Nigeria.

Economic Growth

Economic growth is the increase in the value of goods and services produced by an economy. Economic growth includes the rate at which new investment and new resources could be brought into productive use by the population (Ominde and Ejiogu 1972, Stanlake and Grant, 1995) define economic growth as any increase in the Gross National Product (GNP) or Gross Domestic Product (GDP), but for several reasons this is a rather misleading use of the term. In Economics, “economic growth” or “economic growth theory” typically refers to growth of potential output i.e. production at full employment” rather than growth of aggregate demand (David, 1994). “Balanced growth” is an important consideration for a community or region. If the economy of a community or region depends heavily on one industry, it will feel the effects of the peaks and valley of the business cycle of the industry. By encouraging the industry to expend into a number of different geographic markets or attracting different industries into the community or regions, the “boom” and “bust” cycle can be managed. Through this diversification, the impact of a single event in one market or industry on the local economy can be made less dramatic.

Hypothesis

H₀: Agriculture does not have impact on economic growth in Nigeria

Theoretical Framework

The growth theory and growth empirics are attractive subjects in economics. The modern concept of economic growth started with the critique of Mercantilism, especially by the physiocrats. During the 16th to 18th century the mercantilist believed that nation wealth and power were best served by increasing export and collecting precious metals in return. The mercantilism focused on ruler’s wealth, accumulation of gold or the balance of trade. Physiocracy is a school of thought founded by François Quesnay (1774). This theory originated in France and was most popular during the second half of the 18th century. Physiocracy is the first well developed theory in economics. This doctrine was dominated by Marquis de Mirabeau, Mercier de la Riviere, Dupont de Nemours, La Tronse, the Abbe Baudeau and others. The main theme of this doctrine was Francois Quesnay’s (1759) axiom that only agriculture yielded a surplus- what he called a net product. The physiocrats believed that the wealth of nations was derived solely from the value of land agriculture or land

development. From the viewpoint of modern economics the main weakness is that they only consider agricultural labor to be valuable. Physiocrats viewed the production of goods and services as consumption of the agricultural surplus, while modern economists consider these to be productive activities which add to national income. The most important contribution of the physiocrats was emphasis on productive work as the source of national wealth. The productive capacity itself allows growth and increment of national wealth.

Literature Review

Iganiga and Unemhilin (2011) studied the effect of federal government agricultural expenditure and other determinants of agricultural output on the value of agricultural output in Nigeria. A Cobb Douglas Growth Model was specified to include commercial credits to agriculture, consumer price index, annual average rainfall, population growth rate, food importation and GDP growth rate. The study performed comprehensive analysis of data and estimated the Vector Error Correction model. Their results showed that federal government capital expenditure was found to be positively related to agricultural output.

Oji-Okoro (2011) employed multiple regression analysis to examine the contribution of agricultural sector on the Nigerian economic growth. They found a positive relationship between Gross Domestic Product (GDP) vis-a-vis domestic saving, government expenditure on agriculture and foreign direct investment between the period of 1986-2007. It was also revealed in the study that 81percent of the variation in GDP could be explained by Domestic Savings, Government Expenditure and Foreign Direct Investment.

Using time series data, Lawal (2011) attempts to verify the amount of federal government expenditure on Agriculture in the thirty-year period 1979 – 2007. Significant statistical evidence obtained from the analysis showed that government spending did not follow a regular pattern and that the contribution of the agricultural sector to the GDP was in direct relationship with government funding to the sector.

The strong correlation that has been established between Nigerian's total GDP and the agriculture suggests that the prospects of the non-oil sub-sector and the overall economy are closely tied to the performance of the agricultural sector. Iganiga and Unemhilin (2011) studied the effect of federal government agricultural expenditure and other determinants of agricultural output on the value of agricultural output in Nigeria. A Cobb Douglas Growth Model was specified and included commercial credits to agriculture, consumer price index, annual average rainfall, population growth rate, food importation and GDP growth rate. The study performed comprehensive analysis of data and estimated the Vector Error Correction model. Their results showed that federal government capital expenditure was found to be positively related to agricultural output.

Methodology

For the purpose of this research, only secondary data were used owing to the nature of the research problem under investigation.

However, the data set were sourced from Central Bank of Nigeria (CBN) Statistical Bulletin 2007, 2008, 2009, 2010 and 2019 as well as African Development Bank (ADB) Selected Statistics on Africa 2008 through 2014, National Bureau of Statistics and Federal Ministry of Interior.

In the course of this time series research, the sample covered a period of thirty nine (39) years, from 1980 to 2019. Non probability sampling method in the form of availability sampling technique was used in selecting the number of years that constituted the sample size of this study. The data collected for this research were analyzed using Johansen (1988) cointegration approach, with help of STATA version 11.1 statistical package. Indeed, there were many different methods used in testing for causal relationship between two or more series variables. However, Aktas and Yilmaz (2008) assert that the most widely applied method is that of Johansen (1988) and Johansen and Juselius (1990). For this reason, this study adopted Johansen (1988) approach.

To apply this approach certain diagnostics tests were carried out. First the series variables were plotted in order to identify whether constants or trends should be included in the tests of non stationarity (Dougherty, 2007).

Augmented Dickey-Fuller (ADF) unit root test was widely used to test for stationary series. However, the traditional ADF unit root test, i.e., Dickey and Fuller (1979) type was not consistent.

Model Specification

The relationship between Agriculture and economic growth has been investigated using Autoregressive Distributed Lag Model (ADL) as follows: $RGDP_t = \beta_0 + \beta_1 RGDP_{t-1} + \beta_2 AGR_{t-2} + U_t$ ----- (1)

Where:

RGDP = Dependent variable RGDP

β_0 = constant parameter β_1 = coefficient of the first lag values of RGDP $RGDP_{t-1}$ = Lag

values of RGDP β_2 = Coefficient of lag values

Agriculture

AGR = Agricultural Output U_t

= Error term

Results

Table 1: Descriptive Results

Variable	Observation	Mean	Standard Deviation	Minimum	Maximum
Economic Growth	39	296671	245700.1	1483.7	743256
Agricultural Product	39	171438.2	265608.9	2576.4	984632.8

Source: Author's computation using STATA software

The data used in this research have been summarized in Table1 using descriptive analysis in form of mean, standard deviation, minimum and maximum. The number of observation (39) represents the number of years covered by the study. 296671 was the mean for real GDP in Millions of Naira, 171,438.20 million tons were the mean for agricultural output produced in Nigeria within the study period while 265,608.9 million tones were the standard deviation for agricultural output. 2576.4 and 984632.8 million tons respectively are the minimum and maximum agricultural output produced in Nigeria within the study period.

Table 2: Result of Phillip Perron Unit Root Tests

Variable	Phillip Perron	
	Ho: A series variable stationary. Critical values	
	10%: 0.119 5%: 0.146 1% 0.216	
	Test statistics	
	Level Value	Difference in value
Real GDP	-1.066(0)	-10.445(1)***
Agricultural Product	-2.190(0)	-5.576(1)***

Source: Author's computation using STATA software

Note: *** indicate levels of significance at 1%. In addition (0) and (1) represents level and differenced values of the Test Statistics.

The results of Phillip Perron Unit root test on the variables at their level and first differenced values indicates stationarity of Real GDP and Agricultural Output at 1% level of significance. However, to avoid spurious results, the variables have been subjected to differencing. After the first differencing, all the variables are found to be stationary at 1%; hence, they are cointegrated of the same order.

Table 3: Results of Johansen Tests for Cointegration

Maximum Rank	Parms	LL	Eigen Value	Trace Statistics	5% Critical Value
0	30	-3368.1018	-----	70.8464	68.52
1	39	-3354.1713	0.47687	42.9854*	47.21
2	46	-3342.0164	0.43184	18.6755	29.68
3	51	-3336.26	0.23489	7.1628	15.41

Source: Author's computation using STATA software

Note: * indicates that Trace Statistics value is not significant at 5% level, suggesting no more than one co integrating rank.

The result of Co integration tests indicates the rejection of the null hypothesis which states there is no co integrating vector, since the trace statistics 70.8464 is greater than its critical value 68.52 at 5% level of significance. This suggests the acceptance of alternative hypothesis, that there exists co integration among the variables captured in the co integration regression. The results further indicate that there is no more co integrating rank. This is because the values of the trace statistics at one rank 42.9854, which is less than the critical value of 47.21 at 5% level of significance.

Table 4: Normalised Cointegrating Coefficient

Beta	Coefficient	Standard Error	Z	P>/z/	95%	Confidence Interval
Error Correction Term						
Per Capital Real GDP	1					
Agricultural Output	-.0336846	.0387709	-0.87	0.385	-.1096742	.042305
constant	4356.284					

Source: Author's computation using STATA software

Table 4 presents the normalized co integrating coefficients. After normalization imposed, the co integrating coefficient will be:

$$Ec_t = drgdp_t - 0.034dagropt_{t-1} + 4356.28$$

Since Real GDP (drgdp) as a measure of economic growth has been normalized to 1, it then becomes the dependent variable. Thus, the long run economic growth equation will now be:

$$drgdp = 4356.28 - 0.034dagropt_{t-3} + 2Ec_t \quad (6.60) ***$$

The results suggest negative long run relationship between agricultural product and economic growth in Nigeria. The coefficient of agricultural output (0 . 0.034) has a negative sign with ratio 6.60, suggesting significant negative relationship between agricultural product and economic growth in Nigeria.

Table 5: Granger Causality Test

Dependent Variable	Independent Variable	Chi-Square Test Statistic	Remarks
Real GDP	Agricultural Produce	0.02237 ** (0.881)	Causality not running from Agriculture to Economic Growth
Agricultural Produce	Real GDP	0.32233 * (0.570)	Causality not running from Economic Growth to Agriculture

Source: Author's computation using STATA software

Note: * and ** indicate levels of significance at 10%, 5% and 1% respectively.
The results indicate no causality between Agricultural Output and Economic Growth in Nigeria.

Discussion of Results

This study aims at investigating the long run and causal relationship between Agriculture and Economic Growth in Nigeria.

However significant negative relationship has been found between Agricultural output and economic growth in Nigeria, On the other hand, the result of Granger (1986) causality indicates absence of causality between Agricultural Produce and economic growth in Nigeria. These findings are contrary to the findings of Oji-Okoro (2011) who found positive relationship between agriculture and economic growth in Nigeria. The variation may arise due to application of different method of analysis. Oji-Okoro (2011) for instance used multiple regression analysis in his study and the period covered was not long enough to obtain a reliable result. The data collected was not subjected to unit root test to check for non stationarity, as such it was not doubtful to obtain contradictory results from the studies.

Moreover, obtaining a negative relationship between agriculture and economic growth in Nigeria is not surprising considering the subsistence agricultural practices by the greater proportion of farmers in Nigeria. Export of agricultural produce is very insignificant to propel growth in Nigeria.

Summary of Findings

This research paper generally examines the long run and causal relationship between Agriculture and economic growth in Nigeria. Annual time series data on the captured variables for the period of forty five (45) years, (From 1970 to 2014) have been collected and used.

Descriptive statistical analysis has been applied in summarizing the data. To check for the stationarity of the data, Dickey- Fuller unit root test, Augmented Dickey-Fuller unit root test and Phillip Perron unit root tests have been run. To investigate long run relationship, Johansen cointegration test have been applied.

The findings of the paper are summarized as follows:

1. There is significant long run negative relationship between agriculture and economic growth in Nigeria. The coefficient of agricultural output has a negative sign, suggesting significant negative relationship between agriculture and economic growth in Nigeria.
2. There is no causality between Agricultural Output and Economic Growth in Nigeria.

Conclusion

On the basis of the literature reviewed and findings of the study, the paper concludes that there is a negative relationship between agriculture and economic growth in Nigeria. However the paper concludes that no causality exists between Agricultural Output and Economic Growth in Nigeria.

Recommendations

Based on the findings of this study, the following recommendations are put forward:

1. Since there is significant long run negative relationship between agriculture and economic growth in Nigeria, government should come up with an agricultural revolutionary scheme capable of restoring the lost glory of the sector. The agricultural sector alone can generate sufficient revenue to the government and foreign exchange in addition to massive employment generation, food for the people and animals as well as raw materials for manufacturing industries. If the agricultural sector is not improved, the country may end up being of the bottom of the ladder of developed countries arising from a very dismal economic growth rate.
2. The absence of causal nexus between agriculture and economic growth shows that the agriculture is not performing up to expectation as such; the sector requires revolutionary policy that will positively affect economic growth. Nigerian government can copy agricultural policies from Brazil, Thailand, and China among other agriculturally developed country.

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SOCIO -ECONOMIC IMPACTS OF SCRAP METAL SCAVENGING IN KATSINA METROPOLIS

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Abstract

Scrap metal scavenging in Katsina Metropolis gains ground in recent years, attracting a large number of people who passionately scavenge in different scales. This paper investigates the socio-economic impact of scrap metal scavenging in Katsina Metropolis. Primary data have been collected using validated structured questionnaires and interview techniques. The respondents have been selected using random sampling method, constituting a hundred and twenty. Pie Charts, Percentage analysis and Chi- Square Test have been used to analyze the impact of scavenging on the identified social and economic variables under investigation. The results show that scavenging is a dependable source of income and enables people to meet basic need of life. Part of the income earned is saved and invested in other sectors of the economy. The findings further reveal that, scavenging in Katsina Metropolis, nether affect school dropout nor vandalisation of public infrastructure. It is also found that scrap metal scavenging has a positive social and economic impact in Katsina Metropolis. The paper recommends modernization of metal scavenging business, Provision of credit facilities, provision of skills and application of Technology in securing public infrastructure.

Keywords: Scrap, Metal, Scavenging, Economy, Metropolis

Introduction

Growing rate of unemployment in Nigeria, in recent years compels people, especially the youth to develop high spirit of entrepreneurship for survival. This can be observed from consistent increase in brand new businesses that had never existed in the history of mankind. Regardless of level of education, economic status or tribe, people in varying age groups, persistently scan for dependable economic activities to keep body and soul together. Moreover, advancement in technology yields business opportunities to a large extent. While some people see wealth in agriculture, ICT, communication, arts, fashion and design, carpentry, metal work, commerce and industries, others identify huge economic potentials in scrap metals scavenging.

In Katsina Metropolis for instance, the scenario is in no way different from most other places. People geometrically took to the streets to scavenge for scrap metals. The business gains ground day after day, as more people develop passion in it. The rapid increase in scrap metal scavenging is perhaps triggered by the eye popping population growth, rural – urban migration, increase in Almajiri schools and perhaps, the location of Steel Rolling Mill in Katsina ancient city.

Furthermore, the rapid increase in scrap metal scavenging in Katsina is spurred by consistent use of usable objects made from different categories of metals by the households, businesses and governments. It is no longer news to spot scavengers touring the nook and crannies of the metropolis in search of scrap metals.

Nonetheless, the precise motive behind rapid growth of scrap metal scavenging ahead of many other historic businesses in Katsina needs to be investigated. The question of who benefit the sufficiently from the scavenging business among the three major economic entities (ie, household,

business sector and government) needs to be empirically verified. While the paper seeks to investigate the socio-economic impact of scrap metal scavenging in Katsina metropolis, a number of specific questions have been asked. Does scrap metal scavenging benefits scavengers economically and socially? How does it affect their personal development educationally and perhaps morally? Does scavenging create positive or negative externality? These are the cardinal questions this paper intends to answer. What is the impact of scrap metal scavenging on youths' morality in Katsina metropolis?

To find appropriate answers to the questions above, Primary data was collected and analyzed accordingly, using descriptive statistics, Pie charts, percentages and Chi- square test.

Purpose of the Study

The purpose of the study is to find out the socio-economic impact of scrap metal scavenging in Katsina Metropolis.

Research Question:

What are the economic impacts of scrap metal scavenging in Katsina Metropolis?

What are the social impacts of scrap metal scavenging in Katsina Metropolis?

Research Hypothesis:

H₀₁: Scrap Metal Scavenging does not have positive Economic impact in Katsina Metropolis **H₀₂:** Scrap Metal Scavenging does not have Positive Social Impact in Katsina Metropolis

Conceptual Framework

Scrap Metal

Scrap Metal consists of recyclable materials left over from product manufacturing and consumption, such as parts of vehicles, building supplies, and surplus materials. Unlike waste, scrap has monetary value, especially recovered metals, and non-metallic materials are also recovered for recycling. Scrap metal is one of those foundation materials that can be refashioned into many new uses. Scrap iron and aluminum metals are being used extensively in the construction industries in projects such as roads and bridges. The beauty of metal recycling is that, it can be recycled again and again without changing its properties. The most important metals which are used are (nonferrous) aluminum, tin, and brass, copper and (ferrous) steel and iron.

Solid Waste

Adegoke (1991) defines solid wastes as metal substances which are required to be disposed of according to the provision of national law. Ajibade (2004) on the other hand, defines solid wastes as unwanted materials that need to be discarded. According to Magaji (2005), Solid Wastes are materials that no longer have value to the owner.

Scavenging

Human Development Theory

Fofana, (2009), highlights the significance of improving the living conditions of societies through the use of natural resources and ensuring that future generations will have similar opportunities to

utilize these resources and enjoy the same benefits. The concept however professes upholding the three fundamental pillars: economy environment and society).

This paper investigated the socio- economic impact of scrap metal scavenging in Katsina Metropolis. As the main objective of economic development is to raise the living standard of the people any activity that yields social and economic benefits and human development like scavenging of scrap metal is in line with the postulations of human development theory.

Socio – Economic Impact of Scrap Metal Scavenging

According to Carter (2012), South Africa is among the most affected countries by scrap metal scavenging. The country loses 1 billion United States Dollars a year from theft of copper. It is reported that, a syndicate stole 30 miles of telephone lines in a single night. Carter stresses that, railroads cables in South Africa have been so damaged to the extent that shipping containers spend double of the time spent earlier to cross the country from twenty (20) to forty 40 hours.

For South Africa to control infrastructure vandalism, Scrap metal Act 2015 was enacted, which blocks exportation of illicit scrap metal scavenged from railways, road signs, road barriers, electricity wires, transformers, and water pipes. The Act provides appropriate measures protecting public interest against vandalism and theft of infrastructure and private property (Carter, 2012).

To enforce the law, inspectors were employed, who monitored the scrap metal and ascertain its source. Inspectors were given powers to arrest and prosecute any scrap metal scavenger who failed to justify the source of the scrap metal in his possession. Where the actual source was not traced, the courts of law declare it forfeited to the government.

According to Fofana, (2009), 82 USD is the monthly average income of scrap metal collectors. The amount is found to be more than the minimum wage of USD 55 for a formal sector employee such as a laborer employed in the construction industry in Free Town (ibid). Fofana (2012) further, stresses that the USD 82 is an average figure, the fact on the ground reveals that some scrap metal collectors realized less than this figure while others realized incomes more than the average figure in a month.

Moreover, Fofana affirms that income gained by scrap metal collectors is found to be unreliable. Factors responsible for the unreliability of incomes are scrap metal price fluctuations and the risk of exhaustion of scrap metals.

In Nigeria, Scraps metal constitutes a significant proportion of solid waste in most cities in recent times. Ohimain (2013) opines that scrap metals account for 18% of the total solid waste in Nigeria's largest cities. Though, useful materials are often found from solid waste, including scrap metals, wood, plastics, etc. (Nabegu, 2010), many important metals are being recovered and recycled, including iron and steel, copper and aluminum (Onwughara, *et al* 2010).

In the United States for instance, metal recycling contributed 76.9 metric tons of metal valued at 14.2 billion USD (Papp, 2001). Scavenging therefore, remains a dependable means in which the poor people can earn living

Report from the United States of America, revealed that scrap metal scavenging creates many jobs to people. Metal industries grow consistently and gain ground, giving room for scavengers to earn income to meet the basic need of life. In the year 2011 alone, scrap metal scavenging created jobs for more than 450,000 Americans (Papp, 2001).

In addition to the thousands of jobs created in the United States of America, Scrap metal scavenging generates sufficient annual revenue to the United States government, amounting to 90.6 Billion USD, while many states in the country realize revenue averaging to 14 Billion USD per annum.

Methodology

This paper investigated the socio-economic impact of scrap metal scavenging in Katsina Metropolis. Simple random sampling technique has been used in collecting data from a hundred and twenty scavengers in the metropolis. Due to the low level education of the scavengers, questionnaire and interview techniques were simultaneously adopted.

Pie Charts and Percentage analysis have been applied to summarize the demographic information of the respondents and questions of interest to the respondents. Chi-Square Test was run to ascertain the socio- economic impact of scrap metal scavenging in Katsina metropolis.

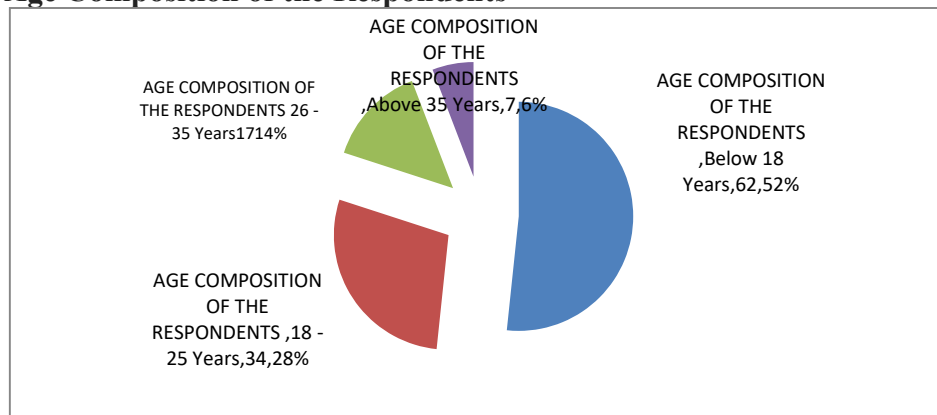
The Chi square formula is expressed as follows:

$$X^2 = \sum \frac{(O - E)^2}{E}$$

Where: O = Observed frequencies, E = Expected Frequencies, and X²=Chi Square

Analysis and Interpretation of Results

Age Composition of the Respondents

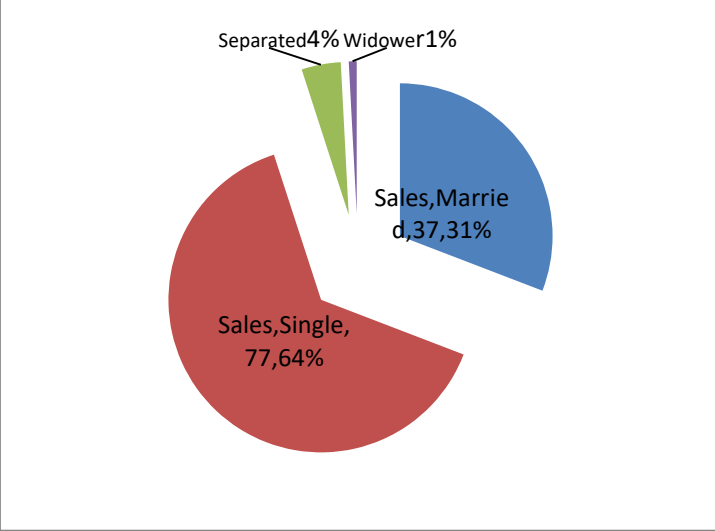


Source: Authors computation using MS window 10 mathematical application % = Percentage

The Pie Chart above however, depicts age distribution of the respondents in percentages. It has been observed that scavengers below eighteen years constitute 52% of the total respondents. This shows that more than half of scrap metal scavengers in Katsina metropolis are children of school age. The chart however, depicts 28% of the scavengers are of age between 18 to 25 years. This

category also constitute youths who are suppose to be in tertiary institutions studying different courses. People of age between 26 to 35 years constitute 14% of the total respondents, while people above 35 years constitute only 6%. From the above analysis, it is clear that scavenging business in Katsina is dominated by children and young people who are suppose to be in school. Only a small number of adult partake in scavenging business.

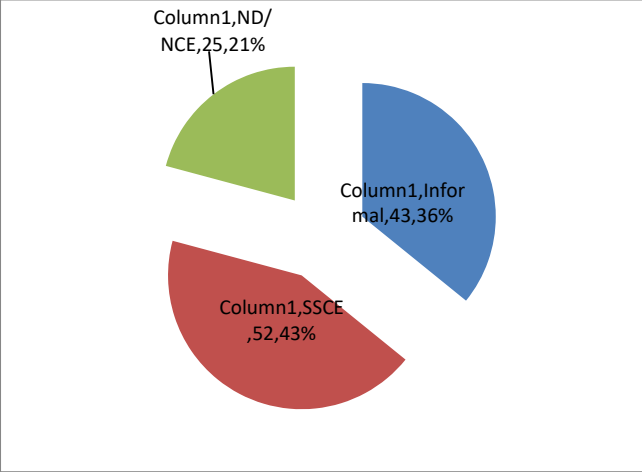
Marital Status



Source: Authors computation using MS window 10 mathematical application % = Percentage

The Pie Chart above depicts marital status of the scrap metal scavengers in Katsina Metropolis. The result shows that, 64% of them are singles, 31% are married, 4% are separated while 1% of them are widowers. The larger percent of singles among the scavengers does not come as a surprise, looking at the fact that majority of them are below 18 years, with a relatively small number of them above 25 years.

Educational Background



Source: Authors computation using MS window 10 mathematical application % = Percentage

The Pie chart above presents educational background of the respondents. It shows that 43% of the respondents have Senior Secondary School Certificate (SSCE). This constitutes the majority of the scavengers in the metropolis. Thirty six percent (36%) acquired informal education. Moreover, the result indicates that 21% of the respondents have either National Diploma or National Certificate in Education. Zero percent (0%) of them have HND/Degree and Postgraduate Certificate.

Percentage Analysis of Responses on the Socio – Economic Impact of Scrap Metal Scavenging in Katsina Metropolis

S/ N	Description Question	Strongly Agreed (%)	Agreed (%)	Undecided (%)	Disagree (%)	Strongly Disagree (%)	Total (%)
1	Scrap metal scavenging helps generates income for a living	22 (18.3%)	65 (54.2%)	3 (2.5%)	17 (14.2%)	3 (2.5%)	120 100%
2	Scrap metal scavengers have access to basic needs of life.	28 (23.3%)	72 (60%)	2 (1.7%)	12 (10%)	5 (4.2%)	120 100%
3	Scrap metal scavengers save part of their earned income	32 (26.7%)	54 (45%)	5 (4.2%)	12 (10%)	17 (14.2%)	120 100%
4	Scrap metal scavengers invest part of their savings in other business	35 (29.2%)	53 (44.2%)	2 (1.7%)	21 (17.5%)	09 (7.5%)	120 100%
5	Scrap metal scavenging increases rate of school dropout	26 (21.7%)	7 (5.8%)	47 (39.2%)	24 (20%)	16 (13.3%)	120 100%
6	Scrap Metal scavenging results to vandalism of public properties	37 (30.8%)	26 (21.2%)	5 (4.2%)	41 (34.2%)	11 (11%)	120 100%
7	Scrap metal scavenging is being regulated/monitored by the government	07 (5.8%)	09 (7.5%)	26 (21.2%)	68 (56.7%)	10 (8.3%)	120 100%
848	Scrap metal scavengers access loan to boost their businesses	13 (10.8%)	19 (15.8%)	8 (6.7%)	71 (59.2%)	09 (7.5%)	120 100%

From the Table above, answers from the respondents were summarized in percentages. Results of question one clearly shows that 54.2% of the respondents agree that scrap metal scavenging generates income to scavengers. Only 2.5% disagree with the question. Moreover, answers to the second question shows that, sixty percent (60%) of the scavengers agreed that scavengers have access to basic needs of life. Similarly, a positive outcome was recorded in the third question as forty five percent (45%) of the respondents agree that part of the earned income from scavenging is saved, meaning that, scavenging is a way through which capital is created for investment in other businesses as observed from the answers to question four in the table. Thirty nine point two percent (39.2%) of the respondents do not decide on the effect of scrap metal scavenging on school dropout as depicted in question six. This shows that children who are engaged in metal scavenging business hardly acquired qualitative education. In addition to that, thirty four point two (34.2%) opined that scavenging does aid vandalism of public properties. It means, the business did not undermine government efforts to provide and safeguard metallic infrastructural facilities. On the contrary, fifty six point seven percent (56.7%) of the respondents disagree that scavenging activities is not being regulated in Katsina Metropolis. It means authorities do not cross check the source of the scavenged scrap metals, and this may give room for theft and perhaps transaction of vandalized

scrap metals. Similarly, fifty nine point two (59.2%) also disagree with the statement that scavengers in Katsina Metropolis have access to credit facilities.

Test of Hypothesis

Ho₁: Scrap Metal Scavenging does not have positive Economic impact in Katsina Metropolis

	O	E	O – E	(O-E) 2	$\frac{(O-E)^2}{E}$
	54	24	30	900	37.50
	32	24	8	64	2.67
	17	24	-7	49	2.04
	12	24	-12	144	6.00
	5	24	-19	361	15.01
Total	120				63.22

X² calculated = 63.22

X² Tabulated at 5% level of significance = 0.05 d.f

= (r – 1) (c – 1)

Where r = row total, while c = column total

r = 5, c = 2 df = (5 – 1)(2 – 1) df = 4×1 = 4

X² Tabulated at 5% level of significance df = 9.49

The X² result above shows that calculated value 63.22 is greater than the tabulated value 9.49 Therefore, the null hypothesis is rejected that scrap metal scavenging does not have impact on the economy of Katsina Metropolis. The alternative hypothesis is however, accepted that Scrap metal scavenging has positive economic impact in Katsina Metropolis.

Ho₂: Scrap Metal Scavenging does not have Positive Social Impact in Katsina Metropolis

	O	E	O – E	(O-E)	$\frac{(O-E)^2}{E}$
	41	24	17	289	12.04
	37	24	13	169	7.04
	26	24	2	4	0.17
	11	24	-13	169	7.04
	5	24	-19	361	15.04
Total	120				41.33

X² calculated = 41.33

X² Tabulated at 5% level of significance = 0.05 d.f

= (r – 1) (c – 1)

Where r = row total, while c = column total

r = 5, c = 2 df = (5 – 1)(2 – 1) df = 4×1 = 4

X² Tabulated at 5% level of significance df = 9.49

The X² result above shows that calculated value 41.22 is greater than the tabulated value 9.49

Therefore, the null hypothesis is rejected that scrap metal scavenging does not have impact on the economy of Katsina Metropolis. The alternative hypothesis is however, accepted that Scrap metal scavenging has positive social impact in Katsina Metropolis.

Findings

This paper investigated the socio economic impact of scrap metal scavenging in Katsina Metropolis. From the above results, it has been found that scrap metal scavenging generates income to individual scavengers. This qualifies metal scavenging as a dependable means of livelihood, especially at this time when unemployment rate in Nigeria is increasing geometrically. Moreover, the result further reveals that scavengers can afford to basic needs of life. Katsina being the third poorest state in Nigeria as reported by the National Bureau of statistics NBS (2020), it means scrap metal scavenging is a way through which poverty can be minimized to a large extent. The result also reveals that most of the scavengers save substantial part of their income, meaning that, scavenging is a way through which capital is created for investment. This will help in increasing the level of investment in the state and subsequently boost internally generated revenue (IGR) in the metropolis and the state at large.

However, the results show that scavenging does not affect school dropout in Katsina metropolis. This shows that children who are engaged in metal scavenging business can acquire qualitative education, which means, children in school engage in scavenging either after school hours or during holidays. This may not affect the wellbeing of most of the affected children in the long- run. Similarly, the results indicate no effect on vandalisation of public properties, arising from rapid increase in scrap metal scavenging in Katsina Metropolis. It means, the business does not undermine government effort to provide and safeguard metallic infrastructural facilities. On the contrary, a significant number of scavengers affirm that, activities of scavengers are not being regulated in Katsina Metropolis, meaning that authorities do not cross check the source of the scavenged metals. This may pave way for transaction of vandalized metals. Finally, it is found that scavengers in Katsina Metropolis have no access to credit facility. Looking at the immense economic benefits derived from scavenging of scrap metal, provision of capital will propel growth and development of the business. On final note, the Chi – Square result reveals a strong positive social and economic impact of scrap metal scavenging in Katsina Metropolis.

Conclusion

In line with the findings discussed above, the paper therefore concludes that scrap metal scavenging is a dependable source of income. Scavengers have access to basic needs of life. Most of the metal scavengers in the city save substantial part of the income earned. It further concludes that scavenging does not affect school dropout. Similarly, it concludes that scraps metal scavenging neither triggers vandalisation of public properties nor undermine government effort to provide and safeguard metal infrastructural facilities. Finally, it is concluded that scavengers in Katsina Metropolis have no access to credit facility. On general note, the paper concludes that scrap metal scavenging has a strong positive social and economic impact in Katsina Metropolis.

Recommendations

Based on the conclusions stated above, the paper therefore recommends that:

1. Since scrap metal scavenging is a dependable source of income capable of providing basic needs of life, graduates from higher institution of learning and unemployed youth should be encouraged to engage in scavenging in a modernized way. This can be achieved through rigorous entrepreneurship training and adequate support from financial intuitions, and subsequently help in decreasing the alarming proportion of unemployed youth in Katsina city and beyond.
2. Since scavengers save substantial part of their saving, more business skills and training should to be provided for economic diversification and creation of linkages with other related sectors.
3. Information and Communication Technology (ICT) should be applied in securing Metallic infrastructural facilities such as street light and electricity poles, roofing zinc, water tank and pipes among others.
4. There is need for modernization of scrap metal scavenging process and recycling and provision of credit facilities to scavengers. Access to capital will enable business scale expansion, growth, specialization and economic development.

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FACTORS AFFECTING CUSTOMER LOYALTY: AN ANALYSIS OF JIBSON YOGHURT MALUMFASHI, KATSINA STATE.

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Abstract

This study investigates the factors affecting customer's loyalty. Questionnaire was used to source primary data from 217 customers of Jibson Yoghurt located to Malumfashi local government area of Katsina state, Nigeria. The data were collected between April and August 2020. The data analysis was based on Mean and Standard Deviation in an attempt to answer the research questions accordingly. The study finds that all the factors outlined in the questionnaire have a positive significant impact on customer's loyalty in our selected sample. The study, therefore, recommends that Firms should set up efficient and functional initiatives to increase the level of differentiation in their products in order to achieve a high rate of customer loyalty.

Keywords: Differentiation, customers, questionnaire, firms, standard deviation.

Introduction

Food and beverages refers to anything derived from agricultural products as well as any type of plantation, forestry, fisheries, pre-processed or processed for human consumption. Similarly, these include the process of preparing and processing additional ingredients, raw materials and other materials for consumer satisfaction. Manufacturers should seize the opportunity to differentiate themselves at any point to suite their customers. Differentiation in any organization derives customer loyalty if the positioning and the improvements being made are really based on what matters most to customers. Maintaining customer loyalty is a competitive business strategy whereby firms attempt to gain a competitive advantage by increasing the perceived value of their products and services relative to the perceived value of other firm's products and services (Rahman, 2011). Similarly, sustaining customer loyalty is every firm's dreams throughout the financial world. Within most production zones, a wide range of differentiated products are available in the market place. Influencing consumer's loyalty in the market comes through the ability to connect project deployment with the most important need of the customers. Resources need to be focused on ideas that will be noticed by customers and that will have the greatest impact on top-line revenue. Darisu et al; (2013), state that while there are numerous ways to influence consumers, identifying meaningful products can be specially fruitful in gaining and sustaining a competitive advantage.

Despite the need for the firms to consider some fundamental factors in order to create and sustain competitive advantage and the fact that competitive forces in the foods and beverages industry are determined by the number of influences, little effort seem to be made in this industry to harness the benefits associated with customer loyalty (Michale, 2010). Additionally, in an industry such as the foods and beverages with most of its products being homogenous in nature, several factors are largely the determinant of customer loyalty. Some hold the view that the method at which firms in the foods and beverages industry utilise relevant factors to insulate their firms against competitors and to enhance customers loyalty seem to be relatively low as compared to that of firms in other

industries (Libby et al, 2002). In order to find answers to why this phenomenon exists, this study provides a platform for highlighting the importance and benefits of relevant factors in the foods and beverages industry to the Nigerian economy. In addition, this research will provide basis for decision making to be made in gaining consumer's loyalty in the market.

The rest of this paper is organised as follows. Section 2 reviews the past studies related to the present study. Section 3 presents the methodology used in this study. Section 4 critically assesses the empirical results and conclusion will be presented in Section 5.

Literature Review

Recent studies suggest that gaining customer loyalty is essential in today's financial climate. It allows the seller to contrast its own product with competing products in the market and emphasize the unique aspects that make its product superior. When utilized successfully, sellers gain a competitive advantage by demonstrating why their products are unique. Gaining customer loyalty is a tactic that companies use in marketing campaigns in order to distinguish their product from other similar products in the market (Darisu et al., 2013). This strategy can focus on real product differences in the customer's minds. Similarly, Libby et al (2002), posits that differentiation is a marketing process that highlights the unique features of a company's products as compared with its rivals. Additionally, Michale (2010) states that the company creates a perceived competitive advantage by convincing customers and prospective buyers about the superiority and uniqueness of their products. Cohen and Mazzeo (2004) argue that making a product stand out against a similar competitor's product is difficult for any company. The process starts with adding additional features to the product that competitors do not have.

According to Dirisu et. al. (2013), a company can set itself apart from the competition in two ways; through cost leadership or through product quality. Cost leadership emphasizes saving money and appeals to those who are on budget. Products quality focuses on providing better products. With so many new products hitting the market, it is important for companies to stand out in terms of quality. Similarly, Alexandra (2011) insists that customers want to know what they are purchasing if it will last and be useful. In addition, Trout and Riukin (1998) asserts that 7-up Company has successfully studied the market structure and positioned their product as uncola for those who dislike cola. This positive effort by 7-up prompts many marketers to position their products by targeting different market segments. Thus, this type of positioning is used to differentiate similar products made by the same company.

Budica and Barbu (2010) postulate that product availability and affordability may gain brand loyalty which is paramount to any successful business. According to them, this strategy focuses on a buyer's perception of value and as long as the seller continues to provide high quality, the customer's base will remain strong. They suggest that creating a product that is unique will not be enough to gain the competitive advantage if the buyer does not value what the seller is differentiating on. This is because today's financial climate contains businesses in an intensely competitive market, and if a product does not consistently have high quality, consumers will turn to competitors. In a related development, Donio et al., (2006) maintain that access to the products highlights more competitive areas which motivate consumers to perceive that other similar products do not meet their needs. Thus, this raises their expectations about the quality standards

they are willing to accept. It also reveals that access to the products is very important as it contributes to the buyer's perception of no substitute being available. According to Jermias (2008) business strategy requires the development of goods or unique services from unmatched by relying on customer loyalty to the brand. A company can be offered higher quality, performance or unique features that each of them can justify the higher prices. Miller (1987) argues that customer loyalty leads to firms investing heavily in research and development activities in order to increase their innovative capability and enhance their ability to keep up with their competitor's innovations.

The above review confirms that there is an existence of significant positive relationship between business strategies and customer loyalty as well as firm's sales growth. However, in Nigerian food and beverages industry, there is still some ambiguity regarding the conventional business strategies such as price, product, quality, distribution and other non-direct strategies. This constitutes the knowledge gap the present study needs to explore.

Research Methodology

In the current section, we attempt to discuss the methodology used to answer the research questions in the present study.

Description of the Study Area

Jibson yoghurt started as a small-scale business in March 2013 when the proprietor established a small-scale production firm in Malumfashi town, Malumfashi Local Government Area, Katsina State Nigeria to produce yoghurt from the milk powder. An increase in demand for the company's products due to its quality and nutritional value among other things necessitated the increment in production capacity from 50,000 pcs to 1,500,000 pcs per day. Similarly, the current sales outlet of the company is 50 depots from the initial 5 depots which were mainly located in the north-western Nigeria. Jibson yoghurt is a sole proprietorship business owned fully by its Director/CEO, Alhaji Jibril Abdullahi. It has over 250 staff at present and hoping for 100% increase in the future. The company has in stock different varieties of yoghurt such as the one liter (LT), half liter (HL), 33cl bottle (Flavored and non-flavored), 33cl sachet, BE 23cl sachet, 18cl sachet and 10cl sachet. The current sales volume of the firm was 200,000 pcs per day.

Population of the Study

Kothari (2004) defines Population as a group of persons, items or objects in which the sample is being taken for measurement. It is therefore defined as a group of people, events, or things of interest in which the researcher needs to formulate inferences based on sample statistic. The population of the present study covers all the customers of Jibson yoghurt. Jibson yoghurt has thousands of customers across North-western region of Nigeria.

Sampling Technique and Sample Size

Sampling refers to the method or technique of choosing an appropriate sample, or a representative portion of the population for determining the characteristics of the entire population (Singh et al., 2014). In this research, non-probability sampling technique was employed in which judgmental sampling technique was selected for this study.

Judgment sampling otherwise called purposive, selective or subjective sampling is a non-probability technique that relies on the judgment of the researcher when choosing a representative sample in the study, in which the required information is gathered from a specific target (Tongco, 2007). The sample is chosen based on the convenience of the researcher. In this approach, the selected respondents were considered because they are predominantly patronising Jibson yoghurt product. The rationale for using judgment sampling technique in this study is to ensure that right choice have been made in the selection of the respondents, where the required information would be obtained.

Sample size determination on the other hand, is the act of choosing the number of populations to include in a statistical sample (Sekaran and Bougie, 2016). It is a percentage of the total populations chosen for the study. Determining an appropriate sample size is important to establish the representativeness of the sample for generalisation (Creswell, 2014). Therefore, in the research, we must use sample because of impossibility to collect data from the entire population. However, in trying to obtain the proper sample size of the study, five (5) cities of the North-western region in Nigeria were chosen to represent the whole sales outlets of Jibson yoghurt. Accordingly, the following cities areas were selected in the study:

S/No.	States/Cities
1	Katsina
2	Kano
3	Dutse
4	Gusau
5	Zaria

Methodology

The present study used descriptive statistics to analyse data by using Mean and Standard deviation in an attempt to answer the research questions. Descriptive statistic was employed in this research because it is considered as the simplest, most convenient and bias free method. Likewise, for any of the research questions to be accepted, its grand mean must not be less than 2.50 otherwise it will be rejected. The research was guided by three research questions.

Furthermore, the instrument designed to collect data was the structured questionnaire which was developed by the researcher and has one section only in order to elicit information that is related to the Jibson yoghurt company. The data were collected between April and August 2020.

However, a four rating scale was used [i.e. SA = (Strongly Agree), A = (Agree), D = (Disagree) and SD = (Strongly Disagree)]. The instrument was subjected to face validation by five experts, four from the department of Business Admin, and the other one from the General Studies department in Hassan Usman Katsina Polytechnic. The essence was to ascertain the validity of the instrument before administering to the target respondents, as well as the suitability of the instrument in terms of the relevance of content, avoiding ambiguity in the item statement and to ensure the appropriateness of the rating scales adopted, and the statistics applied in analysing the research questions. Similarly, some errors were detected and pointed out by validation and all were noted and corrected.

Empirical Results and Discussion

The present study examines the factors affecting customer loyalty in Jibson Yoghurt Company. The following research questions are formulated to guide the study:

1. What are the factors affecting customer loyalty in Jibson Yoghurt Company?
2. What are the factors affecting customer satisfaction in Jibson Yoghurt Company?
3. What are the factors affecting customer retention in Jibson Yoghurt Company?

Research Question 1:

What are the factors affecting customer loyalty in Jibson Yoghurt Company?

Table 1: Mean rating and Standard deviation of the respondents on the factors affecting customer loyalty in Jibson Yoghurt Company.

S/NO.	ITEMS	N	MEAN X	SD	DECISION
1	Product quality	217	3.09	1.44	Recognised
2	Access to the product	217	3.00	1.57	Recognised
3	Differentiation in their product	217	3.20	1.32	Recognised
4	As a matter of principle	217	2.76	1.61	Recognised
5	Product affordability	217	2.66	1.67	Recognised
6	Product availability	217	2.97	1.49	Recognised
7	Price of the related products	217	2.42	1.45	Not recognised

Source: Administered Questionnaire, 2020

Table 1 above shows that items 1 to 6 with mean scores 2.66-3.20 have been recognised as factors affecting customer loyalty in Jibson Yoghurt Company. This is because the mean scores of the items are up to 2.50 as a benchmark. Moreover, item 7 with a mean rating 2.42 falls below the benchmark 2.50. This stands to mean not recognised as the factors affecting customer loyalty in Jibson Yoghurt Company. The finding is consistent with that of Arsil & Bruwer (2014) who also confirms that factors that influence consumer loyalty listed in the Table 1 are recognised.

Research Question 2:

What are the factors affecting customer's satisfaction in Jibson Yoghurt Company?

Table 2: Mean rating and Standard deviation of the respondents on the factors affecting customer's satisfaction in Jibson Yoghurt Company.

S/NO	ITEMS	N	MEAN X	SD	DECISION
8	Product quality	217	3.19	1.36	Recognised
9	Access to the product	217	3.07	1.40	Recognised
10	Differentiation in their product	217	3.30	1.26	Recognised
11	As a matter of principle	217	3.14	1.31	Recognised
12	Product affordability	217	3.30	1.33	Recognised
13	Product availability	217	3.20	1.39	Recognised
14	Price of the related products	217	2.76	1.44	Recognised

Source: Administered Questionnaire, 2020

Table 2 above reveals that items 8 to 14 have lower mean scores 2.76-3.30 which are above cutoff mark of 2.50. Therefore, the items are recognised as the factors affecting customer's satisfaction in Jibson Yoghurt Company. No items in the table show that the factors are not recognised. Therefore, they are considered as identified factors affecting customer satisfaction in Jibson Yoghurt Company. Moreover, the result in Table 2 shows that to maintain customer satisfaction the items 8-14 need to be available in food and beverages industries. The findings are in line with Brown (2003) as well as Seyfang (2004), who also mentions some of the factors influencing consumer satisfaction such as those listed in Table 2. This has also supported our findings in this regards.

Research Question 3:

What are the factors affecting customer retention in Jibson Yoghurt Company?

Table 3: Mean rating and Standard deviation of the respondents on the factors affecting customer retention in Jibson Yoghurt Company.

S/NO	ITEMS	N	MEAN X	SD	DECISION
15	Product quality	217	3.16	1.39	Recognised
16	Access to the product	217	3.15	1.37	Recognised
17	Differentiation in their product	217	3.25	1.32	Recognised
18	As a matter of principle	217	3.20	1.29	Recognised
19	Product affordability	217	3.24	1.40	Recognised
20	Product availability	217	3.20	1.44	Recognised
21	Price of the related products	217	2.84	1.42	Recognised

Source: Administered Questionnaire, 2020

Table 3 above reveals that all items from 15-21 with a lower mean rating 2.84-3.25 are above the cut-off mark of 2.50. Therefore, the items are recognised as factors affecting customer's retention in Jibson Yoghurt Company. No items are rejected. Similarly, the result imply that all the seven items presented are considered to be the factors affecting customer retention in Jibson Yoghurt. The finding is supported with that of Kezis et al. (1998) who conducts similar research on the determinants of customer's retention in food and beverages industry.

Conclusion and Policy Implications

This study has achieved its objectives of investigating the factors affecting customer loyalty in Jibson Yoghurt Company. The findings of the study show that there is a strong positive impact of all the factors outlined in the questionnaire on customer loyalty in the examined areas. The results also reveal that the price of the related products have no any impact on customer loyalty in the Jibson Yoghurt Company. The findings of the study imply that the firms with all the factors presented in the study could effectively enhance the process of customer satisfaction and customer's retention, as loyalty becomes the important growth catalysts for all the business organisations.

Since it has been conclusively established that customer loyalty is vital to the growth of the sales of the firms, policies need to be made by the management to set up an efficient and functional initiatives to promote quality and differentiated products. These include initiatives such as product

differentiation, promoting product quality, product availability and product affordability. Additionally, managers should ensure that consumers have direct access to their products in order to stimulate sales growth.

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APPENDIX

Questionnaire Instruments

Question 1

What factors affecting customer's loyalty in Jibson yoghurt company?

S/NO	ITEMS	SA	A	D	SD
.					
1	Product quality				
2	Access to the product				
3	Differentiation in their product				
4	As a matter of principle				
5	Product affordability				
6	Product availability				
7	Price of the related products				

Question 2

What factors affecting customer's satisfaction in Jibso

n yoghurt company?

S/NO	ITEMS	SA	A	D	SD
.					
8	Product quality				
9	Access to the product				
10	Differentiation in their product				
11	As a matter of principle				
12	Product affordability				
13	Product availability				
14	Price of the related products				

Question 3

What factors affecting customer's retention in Jibson yoghurt company?

S/NO	ITEMS	SA	A	D	SD
.					
15	Product quality				
16	Access to the product				
17	Differentiation in their product				
18	As a matter of principle				
19	Product affordability				
20	Product availability				
21	Price of the related products				

GRAPHOLOGICAL DEVIATION AND CORPUS STYLE

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Abstract

This study tends to look at graphology, deviation, corpus and style as stylistic terms with a view to breaking down the technical phrase into comprehensive bits and widening the scope reference to arrive at a logical conclusion. Views of scholars on the concepts above and very many examples of their impact would be appreciated.

Key words:

Graphological Deviation

The term graphology is a blend of two Greek terms, thus: “grapho” and “logos”. Their meanings are “writing” and “study” respectively. But the blend has somewhat a slight technical reference. It is a term developed by stylisticians to refer to the study of handwriting and its analysis in relation to human psychology.(Simpson, P. 2004)

The simplicity of the definition quickly arrests the admittance of academic mass, but empirical studies have proven it dissatisfactory of being a tool for personality evaluation. Perhaps, handwritings are gradually developed across ages to some points of their conventionality. Still, the task is a process as language speakers do modify and coin utterances to let go of their intuition. So, they exert effort in representing their speeches on papers.

The conventionality of handwriting is of great achievement to language speakers. The writing becomes intelligible to the recipients. However, on any ground that such conventionality is defiled; the act is referred to as Graphological Deviation. Deviation is, thus, moving away from the normal or acceptable course. Deviation from a normal way of writing does not necessarily teach the idea contained in the writing piece, rather, it may be a logical way of creating an inspiration, art or devising a different way of relating the content of mind on paper.

Perhaps, graphology has aroused many intellectual interests which led to more proliferations of term (such as graphetics, graphopsychology, graphometrics, graphoanalysis, graphotechnology and so on). However, this work gives preference to the writings (handwritten, typed, scribbled or scratched) on the paper and its defiance.

In its realm of how letters form words at strategic places and the arrangement of words with pauses made by punctuations, graphologists affirm certain elements to which every writer must conform. These elements are the size of individual letters, the degree and regularity of slanting, capitalization, punctuation, ornamentation, angularity and curvature. The claim states that any act, for whatever reason, that neglects the conventional system is deemed to have committed graphological deviation. Though, ornamentation springs to create beauty in physical writings, the freelance is stretched to a fresh domain that undoubtedly deviates some writing codes.

Violations of graphological norms can be seen in capitalizing a letter within a word or a sentence, starting a sentence with a small letter (e.g she is a student, i am happy etc). Omission of punctuation marks where they are expected to be present) I need a hammer some nails a pincher and some pieces of wood: would you like to join them), eccentric use of parenthesis, unconventional shortenings and mixture of numerals and letters (e.g b4 – before, there4, therefore). These deviations mostly manifest themselves in poems and prose writing. A look at an analysis of graphological deviations on T.S, Eliot’s “Ash Wednesday” by Muhammad Saleem (2012) would serve as evidence. The act often creates a room for critics to defamiliarise a text to a point that relieves it from its aesthetic and literary substance. Deviations deface a text of its meaning.

Ash – Wednesday (by T.S. Eliot)

1. Because I do not hope to turn
2. Desiring this man’s gift and that
3. Man’s Scope
4. I no longer strive to strive
5. Towards such things
6. (why should the aged eagle
7. Stretch its wing?)
8. Why should I mourn

The graphological deviations in the text above are: line 2 is thoughtfully connected with line 3; there should be semi colon in between. The use of parenthesis in line 6 is also a deviation. The line continues with the flow of sense rather than an emphasis of the preceding line. The eight lines all together are written without punctuations at their ends; even the last line is without a full stop.

Corpus Style

A corpus is a document of selected and compiled written texts or speeches. By a document it means embodiment of numerous texts in certain range of vocabulary to form a blueprint for research reference. It is selective, in that, it adopts some criteria that guide to which text to be selected that would reflect on the target aims; though, it gives preference to a bunch of typical texts and a few best collection that suffice the need. A corpus is compiled by experts. Corpora (the plural form of a corpus) are converted into electronic form through optical scanning and keyboarding (Sinclair J. 1991). The editors of corpus (or corpus creators) supply interpretations and sub – titling where necessary, dubbing is used especially in electronic data storage (Baker, 1998).

This approach of corpus creation through exertion of a great effort to collect, select, interpret, convert and compile series of texts into a document, is a corpus style creation. Style means a chosen way of doing something. The corpus is specially designed to contain a set of materials that reflect on a particular human activity and or development (such as health, education, economics, literature etc.). Such collections are often referred to as ancillary corpora (Sinclair 1991).

Also, there is a general reference corpus that collects (series of texts) from a particular specialist area. Although, collection is done from a varieties of source such that the corpus maintains diversity and language use. For example, English of educational report is one variety of formal language out of many others. Stubbs (2002) says that looking at the resources and techniques of corpus there have been increasing researches that suggest the coming together of numerous fields that would be fruitful for further studies.

Stylistics, which studies the language of literature, utilizes various tools of linguistic analysis. It is a distinctive term that may be used to determine the connections between the form and effects within a particular variety of language; therefore stylistics looks at what is going on within the language; what the linguistic associations are that style of language reveals. A corpus linguistics is one that relies on the evidence of language usage as collected and analysed in corpora. The use of language corpora has become widespread especially in two different approaches; thus, corpus annotation and the analysis of collocation.

Corpus annotation means investigating and conducting a thorough and exhaustive analysis of a particular linguistic feature to make a sample or complete collection of the texts. The collection can be studied in electronic forms as tags or annotations. This process has produced three results thus:

- The analysis of a whole text or corpus is a more empirically sound procedure for discovering linguistic phenomena compared to chosen examples.
- It is possible to extract statistics relating to frequency, distribution and co-occurrence of forms from the annotated texts.
- The annotated corpus is obtained, available for studies aiming to replicate or further develop the research and usable for other areas of literary or linguistic research.

The corpus annotation is exemplified by some devoted work done in the UK at Lancaster University on the forms of speech, thought and written presentation in a corpus of texts. Using corpora, Carter (2004), reveals linguistic creativity in everyday talk, and the work of the Lancaster stylisticians has continued with the analysis of spoken conversation. Leech and Short (1981) develop and illustrate a system of classification for speech presentation in novels and stories.

Within a corpus of modern British English narrative texts, there were representations of fiction, news report and biographical writings. It was then manually analyzed such that each occurrence of any type of reporting or presentation of a language or thought event (e.g direct speech, indirect speech, free indirect thought etc.) was categorized and annotated in the corpus. This enables the analysts to test the adequacy of the theoretical model against real data. It forced them to account for all relevant phenomena found in the text, not just the interesting examples, which they had

chosen to retrieve. It also makes possible qualitative and quantitative comparisons between the different text types. The above techniques and practices are also applicable to non – literary texts and to texts whose literariness is under investigation.

Conclusion

Graphology sets out the norms in writing that failure to comply with them, in especially creative writings, can either be regarded as a deviation or a way of working some sense of literary uniqueness. For the corpus style, though there have been objections to the use of corpora in the study of language and literature, yet, the emerging flexibility and usability of corpus linguistics seem to be a useful toolkit to stylisticians.

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VARIATION ON PROXIMATE COMPOSITION OF WILD AND CULTURED CLARIAS GARIEPINUS (BURCHEL 1822).

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Abstract

The proximate composition of wild and cultured C.gariepinus were studied to identify nutritional difference that might be induced by habitat change. One Hundred samples of fish species from both wild and cultured sources were collected from fishermen from river Kwalkwalawa landing site of River Rima and from fish farmers in Jaradi agricultural venture Sokoto State respectively. The fish tissues were taken from a sample of the two locations and were subjected to proximate analysis for protein, lipid, moisture, ash and fatty acid. There was significant difference ($P<0.05$) between the proximate composition of the two fish samples. Higher level of protein, lipids and ash were observed in cultured C.gariepinus. It can be concluded that wild C.gariepinus collected from Kwalkwalawa landing site of River Rima contained lower values of protein, lipid and ash. However, more moisture content was observed in the wild samples when compared with the cultured ones. Further research into the indepth investigation of proximate composition need to be carried out at various locations with a minimum duration of one year.

Keywords:

Introduction

Fish is one of the most valuable sources of food worldwide. Fish receives increased attention as a potential source of animal protein and essential nutrients for human diets (Kromhout *et al.*, 1995, Zenebe *et al.*,1998,Arts *et al.*,2001). It is a major source of food providing a considerable amount of dietary protein and lipid in many countries. Fish is widely acceptable because of its high palatability, less cholesterol and tender flesh (Eyo,2001). Fish flesh is easily digestible because it contains long muscle fibres. Fish meat contains significantly low lipids and higher water than beef or chicken and is preferred to white or red meats (Neil, 1996,Nestel,2000). Fish, like other animals, requires diverse nutrients to flourish and maintain other biological function.

The chemical composition of a particular species often appears to vary from one fishing ground to another and from season to season, but the basic causes of change in composition are usually variations in the amount and quality of food the fish eats and the amount of movement it makes (Hoffman *et al.*, 1992). The fat composition of fish is highly susceptible to various factors such as the time of the year and the feed available. Information on the proximate composition of the cultured and wild species is necessary in order to give true picture of what consumers buy. The aim of this study is to identify the nutritional elements of differentiation which characterized wild and cultured *Clarias gariepinus* and provide consumer nutritional quality of these fish.

Materials and Method

Description of study area

Sokoto state is located at the extreme North Western part of Nigeria between longitudes 4°E and 6°54E and latitudes 12°N and 13°58N. It shares common borders with Niger Republic to the North, Kebbi state to the South west and Zamfara state to the east. As at 2005, the state had an estimated population of more than 4.2 million. The total land area is about 25,973km² (10,028sqmi). It is mainly savannah and isolated hills (Mamman *et al.*, 2000).

Procurement of Fish

Samples of both wild and cultured *Clarias gariepinus* were obtained from Jaradi Agricultural Ventures and Kwalkwalawa landing site of River Rima along Usmanu Danfodiyo University Sokoto (UDUS) road, respectively. The experiment was set to cover a period of 6 Months. Each month, samples were procured from these two sampling locations and were taken to the Chemical Laboratory Faculty of Agriculture, Usmanu Danfodiyo University, for proximate composition.

Sample Preparation

The Fish samples were transported in cold boxes preserved with ice blocks to the Usmanu Danfodiyo University, Chemical Laboratory, Faculty of Agriculture, Sokoto. Fish were eviscerated, cut and dressed. The dressed sample was chopped and blended such that all parts of the fish (except the viscera) were in the blended samples to be analysed.

Proximate Analysis

Moisture was determined by oven drying the samples of both the wild and the cultured *Clarias gariepinus* obtained from the two sampling locations at 105°C for 24 hours. Crude protein was determined by the Micro kjeldhl methods as described by (AOAC, 2002). Crude fat content of the fish tissue (muscle) was extracted with petroleum ether using soxhlet extraction method at 105°C–110°C (AOAC, 2002).

Data Analysis

Data collected for the six months duration were subjected to analysis of variance. Where significant difference existed Duncan's multiple range test was used to separate the means ($P < 0.05$).

Energy Value

The total energy value was calculated using the crude protein, fat and carbohydrate contents of the fish based on the following formular.

Energy value kcal = $P \times 4.0$ protein kcal/g + $F \times 9.0$ fat kcal/g + $C \times 4.0$ carbohydrate kcal/g

Results

Table 1 shows the proximate composition of wild and cultured fish samples. The value of moisture of wild sample in May (74.03 ± 0.47) was significantly higher than that of cultured sample in May (70.15 ± 0.31). There was no significant difference ($P > 0.05$) between the values obtained in moisture and ash content in some months within the same location. The values obtained in protein content of cultured fish in August and wild fish in April were insignificantly different from each

other. There was no significant ($P>0.05$) difference between the lipid content of wild fish in June and cultured fish in May of the two samples.

Table 2 shows the Energy values of wild and cultured fish sample. There is significant difference ($P<0.05$) between the values obtained. The energy values of cultured and wild fish sample in June (112.15 and 111.98) and August (106.68 and 100.11) were not significantly different ($P>0.05$) from each other. The overall values ranged from 131.81 ± 0.72 to 100.11 ± 0.20 .

Table 1: Mean proximate composition of fish samples (%)

Fish source	Months	Parameters				
		Moisture	Ash	Lipid	Protein	CHO
Wild	April	73.18±1.06 ^{bc}	2.17±0.29 ^b	1.17±0.14 ^f	15.84±0.78 ^{ef}	7.52±0.11 ^d
	May	74.03±0.47 ^{ab}	1.33±0.28 ^{cd}	1.67±0.30 ^{def}	16.09±0.17 ^e	6.79±0.10 ^e
	June	72.69±0.75 ^c	1.33±0.28 ^{cd}	2.05±0.55 ^{bcd}	16.12±0.21 ^e	7.76±0.12 ^{cd}
	July	73.52±0.52 ^{abc}	0.66±0.27 ^e	1.67±0.30 ^{def}	15.32±0.29 ^f	8.77±0.07 ^b
	August	74.55±0.53 ^a	1.97±0.46 ^b	1.33±0.28 ^{ef}	13.99±0.87 ^g	8.10±0.08 ^c
	Sept	67.01±0.50 ^e	1.84±0.28 ^{bc}	1.83±0.30 ^{cde}	17.43±0.33 ^d	11.55±0.41 ^a
Cultured	April	70.29±0.30 ^d	0.83±0.30 ^{de}	1.84±0.28 ^{cde}	19.18±0.31 ^b	7.49±0.14 ^d
	May	70.21±0.73 ^d	3.33±0.59 ^a	2.17±0.27 ^{bed}	18.48±0.46 ^c	5.53±0.39 ^g
	June	72.7±1.05 ^c	1.83±0.30 ^{bc}	2.34±0.28 ^{bc}	17.07±0.13 ^d	6.03±0.07 ^f
	July	70.15±0.31 ^d	1.17±0.30 ^d	3.17±0.60 ^a	20.21±0.28 ^a	5.20±0.17 ^g
	August	72.66±0.50 ^c	3.17±0.30 ^a	2.34±0.28 ^{bc}	15.49±0.38 ^{ef}	6.29±0.07 ^f
	Sept	69.86±0.25 ^d	2.84±0.28 ^a	2.67±0.30 ^{ab}	18.02±0.12 ^c	6.37±0.25 ^f
S.E:		0.37	0.15	0.10	0.30	0.28

Means followed by the same superscripts along the column are statistically similar ($P>0.05$)

Table 2: Mean energy values of fish samples of both wild and cultured (kg/cal)

Fish source	Months	Energy values (kg/cal)
Wild	April	102.61±1.54 ^g
	May	105.57±1.03 ^f
	June	111.9±2.00 ^{de}
	July	110.45±1.26 ^e
	August	100.11±0.20 ^f
Cultured	Sept	131.81±0.72 ^a
	April	119.45±0.62 ^c
	May	113.12±2.18 ^d
	June	112.15±1.20 ^{de}
	July	129.10±1.05 ^b
	August	106.68±1.18 ^f
	Sept	120.54±0.87 ^c

S.E: 1.62

Means followed by the same letters along the column are statistically similar ($P>0.05$)

Discussion

Proximate Composition

Results of the proximate compositions revealed that culture habitat of fish have direct effect on its nutritional quality. The nutritional elements showed variable values in the fish sample analysed with moisture. More or less a similar variation in the moisture contents from 67.01% to 74.55% was reported by Kabahenda *et al.*, (2011). The increase in moisture content in some months could be due to rainy season. Wild fish had the highest and the lowest moisture content. The highest value of moisture recorded and lowest in protein of wild *C. gariepinus* does not conform with Srikanth *et al.*, (1989) who report that moisture contents were lowest and protein highest under the influence of fertilizer treatment with high and low in *Cyprinus carpio*.

The lowest protein content of 13.99% was recorded in wild *C. gariepinus*. Almost all the fish samples had the average protein content between 15 to 20%. There was no significant difference ($P > 0.05$) between the values obtained in May and June of wild fish samples. In a study conducted by Staffens (2006), protein formed the largest quantity of dry matter in the fish samples. However, the present study contradicts Staffens, the reasons could be due to species differences, feed, type of fish, migration and probably the environment. Cultured fish samples had the highest value of protein and this is not unconnected with level of intense feeding which was conspicuously not present in the wild samples. Mahboob *et al.*, (2004) also reported high protein contents in the samples of cultured *Labeorohita* examined. The present study does not conform to the study conducted by Ashraf *et al.*, (2011) on grass carps where the protein contents of farmed raised grass carp and silver carp were significantly lower than those caught from the wild. According to Adewoye and Omotosho (1997), the differences observed in percentage within habitats may also be attributed to the consumption or absorption capability and conversion potentials of essential nutrients from the diet or their local environment of the fish.

Fish species are generally grouped into categories based on their fat content. Lean fish <2%, low fat 2-4%, medium fat 4-8% and high fat >8%, (Ackman, 1989). It has been indicated that the moisture content is an indication of its relative lipid and protein contents of the fish (Dempson *et al.*, 2004). This study followed the trend of similar research conducted by Paul and Vivian (2011) that fat content is inversely proportional to the moisture content. Lipid content of the cultured *C. gariepinus* was higher than wild *C. gariepinus*. This finding also support the findings of Alasalvar *et al.*, (2002) on sea bass (*Dicentrarchus labrax*), Grigorakis *et al.* (2002) on gilthead sea bream (*Sparus aurata*). In his study, Tahir (2003) reports highest lipid contents in farmed *Labeorohita* when compared to wild specimens. In general, the variation in the fat content could be as a result of some factors which include type of food, dietary ingredients, season, environment, higher energy consumption in farmed fish when compared to wild fish (Grigorakis *et al.*, 2002) and possible periods of starvation encountered by wild fish (Haard, 1992).

Ash is a measure of the mineral of any food including fish (Omotosho *et al.*, 2011). Cultured fish had the highest ash content 3.33% and wild fish had the lowest 0.66%. The values obtained are insignificant ($P > 0.005$) in August and September of cultured fish sample and also in August and September of wild sample. This could be attributed to the level of minerals available in the water or the type of feed they eat. Fish generally have very low levels of carbohydrate. The average

carbohydrate contents in the fishes ranged from 5.20% to 11.55% (Table 1). The high carbohydrate values could be due to the fact that glycogen contributes much to the reserves in the fish body tissue.

Energy Values

The energy values of fishes differ among the fish samples significantly both within same and different location. The highest energy value of 131.81kcal was recorded in wild fish due to high content of carbohydrate while that of cultured fish (129.10) was due to protein content obtained. The high energy values could be due to high fat, protein or high carbohydrate contents. According to Judith and Jenny (1987), large variations in fat and protein content would reflect in a wide range of calorific values. Energy values are influenced by fat, carbohydrate and protein content.

Conclusion

In conclusion, the higher protein, lipid and ash content is a characteristic feature of cultured *C.gariepinus* populations from Jaradi agric. Venture. All the fish samples examined, have protein content above 15%.

Recommendation

Further research into the in-depth investigation of proximate composition need to be carried out at various locations in Sokoto State with a minimum duration of one year with a view to establishing seasonal variation of the various components investigated in the present study.

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PANEL DATA ANALYSIS ON THE IMPACT OF TELECOMMUNICATION TECHNOLOGY ON ECONOMIC GROWTH IN DEVELOPING COUNTRIES

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Abstract

This paper investigates the impact of telecommunication technology on the economic growth using balanced panel data from 50 developing countries for 2010-2016 periods. To achieve the goal of this research, the study prefers to use advanced panel data approaches to investigate the relationships between the variables of interest. The findings show that there is a significant relationship between the variables wherein internet and mobile phone were found to have significant positive impact on economic growth in developing countries. This implies that telecommunication technology is an important factor in promoting growth. Similarly, fixed telephone line was found to have negative impact on economic growth in our selected sample. The decline of fixed-line telephony in developing countries is due to the reform made by the majority of the countries where mobile phones became more popular in the market.

Keywords: Economic growth; developing countries; descriptive statistics; ICT; Panel data.

Introduction

Sustainable economic growth is of prime importance when implementing macroeconomic policies particularly in developing countries because sustainable growth is crucial in reducing poverty, unemployment, and inequality (Straubhaar, 2003). In recent years, the telecommunication technology has emerged as an important engine of economic growth. Haskel and Heden (1999) document that the telecommunication technology and the sophistication of its development have been repeatedly highlighted as one of the possible determinants of long-term growth. Even though telecommunication technology has been widely recognised as a catalyst for economic growth, the impact of developing countries' information and technological frameworks on economic growth and the factors that determine their efficiency as drivers of that growth have yet to be progressed compared to advanced countries.

The impact of Information and Communication Technology (ICT) on output growth in both developed and developing economies have been cited in numerous studies. For example, Jorgenson et al. (2000) and Jorgenson and Stiroh (2000) observe that ICT contributed significantly and longitudinally to GDP growth in the United States. Similarly, Haskel and Heden (1999), and Clayton and Waldron (2003), note that ICT contributed substantially to the economic growth of the United Kingdom. Related studies in Germany (Falk, 2002; Bertschek and Kaiser, 2004; Falk, 2001), Spain (Mas and Quesada, 2005), Canada (Baldwin and Diverty, 1995; Sabourin, 2001), France (Entorf and Kramarz, 1998), and the Netherland, Broersma et al. (2003) also affirm the important role played by ICT in economic growth.

Studies pertaining to ICT adoption and utilisation in developing economies have also shed more light on the impact of ICT on real output growth. For instance, in the Middle East, North Africa, and the Sub-Saharan African countries, Bahrini and Qaffas (2019) identified that telecommunication technology is being the major contributor to the real GDP growth in the

economy. Likewise, Kumar (2014), and Kumar and Kumar (2012) confirmed that ICT plays a positive role in the GDP growth of Vietnam and Fiji, respectively. Similarly, In Nigeria, Lal (2007) suggests that the globalisation of the Nigerian economy was been influenced by the adoption of new technologies.

The rest of the paper is organised as follows. Section 2 explains the methodologies. Empirical results are provided in section 3. Finally, the conclusion and policy implications will be presented in Section 4.

Methodology

This section discusses the empirical model, the data, and the methodology applied to achieve the goal of this research.

Empirical Model

The following Cobb-Douglas production function will be augmented and used as an empirical growth model of this study to investigate the impacts of telecommunication technology on economic growth in developing countries:

Here, Y_t is the real output in the country at time t . K_t is the real capital stock, L_t is a labour-augmenting factor representing technological advancement and economic efficiency. Additionally, the labour-augmenting factor is expected to grow according to the following function:

Where λ indicates the exogenous growth rate of technology based on the objectives of this study, β represents a vector of explanatory variables, and α is a vector of coefficients with respect to these explanatory variables.

Here β functions as a vector of explanatory variables, namely, internet users, mobile phone subscribers, and fixed telephone subscribers. Given Y_t and K_t represent output per labour as well as capital per labour respectively, the production function with natural logarithm (ln) can be rewritten as:

Since, therefore, λ not only represents technological advancement (Mankiw et al. 1992), it is rendered as:

where α are parameters to be estimated, and ϵ_t is an error term. Additionally, the growth model used for the estimation can be re-written as:

Where Y_t represents per capita real GDP. Moreover, Equation provides the basis for the empirical model to be estimated in this study.

The Data

The datasets employed in this study consist of a panel observation of 50 developing countries over the period 2010 to 2016. Thus, the selection of the countries and sample period depend entirely on the availability of data. Appendix A shows the countries included in the sample. In view of this, the variables employed in this study include per capita real GDP (USD = 2010), and real Gross Fixed Capital Formation (USD = 2010) to compute capital stock. Similarly, the indicators such as the number of internet users, the number of telephone lines subscribers, and the number of mobile phone users per 100 population has been used as a proxies of telecommunication technology.

These indicators have been extensively applied in other studies (Farhadi et al., 2012; Sassi and Goaid, 2013; Roy et al., 2014; Tchamyoun et al., 2019) and were thus selected for use in this study due to the growing number of internet and mobile phone subscribers in developing countries.

All the data are obtained from *World Development Indicators* (WDI). Moreover, all the data are converted into natural logarithm for standardisation.

Methodology

We used panel data analysis to estimate Equation (6). Given the nature of our data in this study where the sample size is relatively small (i.e. $T = 7$ and $N = 50$), both micro and macro dynamic panel data approaches, such as Generalised Method of Moments (GMM) estimator and the nonstationary panel approach respectively may not be suitable for this study. Therefore, we employed static panel data approaches, namely pooled ordinary least square (POLS) model, random-effect (RE) model, and fixed-effect (FE) model. The choice of the model depends on the characteristics of country-specific effect (μ_i) and/or time-specific effect (γ_t) in the estimated model. If both effects are absent ($\mu_i = \gamma_t = 0$), then the POLS model is preferred to estimate the coefficients in the Equations. If there is only country-specific effect (μ_i), means that intercepts varies across countries but not across time, then estimation with RE and FE models are preferred to the POLS model. Furthermore, if the differences in the intercepts are random, then estimation with RE model is superior to FE model. To address this issue, a set of specification tests will be conducted to choose one out of the three models to analyse the results. For example, the poolability test will be used to determine either POLS or FE model is preferable. Then, we use the Breusch-Pagan Lagrange Multiplier (LM) test to choose between POLS and RE model. If the poolability test and the Breusch-Pagan LM test both suggest that POLS is more appropriate than RE and FE models, then POLS estimation should be used. Otherwise, the Hausman test will be used to distinguish between RE model and FE model.

Empirical Results and Discussions

This section provides interesting results based on the static panel data methods. The summary of various descriptive statistics is as presented in Table 1. The mean value represents the average value that a variable assumes over time and across countries. All the variables have the mean values ranged from 1.816 to 8.641. However, seems to have the highest mean value, while had the lowest mean value. Similarly, possessed the high standard deviation, while had the lowest standard deviation. Standard deviation measures the variability of the data and deviation of the actual values from the mean value. Essentially, standard deviation is far less than the mean value in all the variables. Given these variations, applying natural logarithm on the variables may help to limit such deviations.

Table 1. Summary of descriptive statistics.

Variables	Mean	Std. Dev.	Min	Max
	8.641	0.766	7.119	10.337
	6.850	1.095	4.495	10.046
	3.329	0.748	0.231	4.367
	4.581	0.312	3.678	5.196

1.816 1.309 -2.488 3.873

Furthermore, the estimation results for all models are presented in Table 2. Prior to critically evaluating the estimated coefficients, we begin our analysis by choosing an appropriate model. Based on the diagnostic tests presented in the third part of Table 2, we find that the computed Rsquares for the four models range from 0.629 to 0.726 suggesting that all models are well-fitted with the data. Precisely, our computed R-squares suggest that more than 60 per cent of the variation in the behaviour of economic growth in developing countries could be explained by the selected explanatory variables. Based on the specification tests presented in Table 2, we find that Breusch-Pagan LM test rejects the null hypothesis of POLS model at the 1 per cent significant level. This result suggests that RE model is relatively more suitable than the POLS model for our study. Likewise, the result of poolability test suggest that the POLS model is less appropriate compared to FE model. Consequently, the estimation results with POLS model are no longer valid and we need to conduct the Hausman test to compare between the RE and FE models. The Hausman test result show that the FE model is more consistent and efficient than RE model, and the null hypothesis of RE model is rejected at the 1 per cent significant level. Based on the results of these specification tests, we could conclude that the coefficient estimates with POLS and RE models are biased and inconsistent. However, we find that the selected FE model is subjected to heteroskedasticity problem. Accordingly, the statistical inference may be biased. To address this issue, we re-estimate the FE model using the robust standard-error method and the results are presented in the last column of Table 2.

Table 2. Estimation results of the fixed effect model.

Variables		POLS model
	7.395***	7.395***
	(0.169)	(0.169)
	0.072***	0.072***
	(0.012)	(0.012)
	0.061***	0.061***
Constant	(0.012)	(0.012)
<i>Specification and diagnostic tests:</i>	0.122***	0.122*** (0.033)
	(0.033)	(0.033)
	-0.005	-0.005
	(0.016)	(0.015)
Number of observations	350	350
R-squares	0.629	0.726
Overall F-test	56.47***	199.60***
VIF	[0.000]	[0.000]
Wooldridge AR test		1.76
Heteroskedasticity test		148.20***
		[0.000]
Poolability test (POLS vs FEM)		20551.22***
		[0.000]
Breusch-Pagan LM test (POLS vs REM)		412.34***
		[0.000]
Hausman test (REM vs FEM)		742.51***
RE model FE model		[0.000]
84.07***		(0.352)
		0.055
	[(0.057)
	0	0.053***
	.	(0.019) 0.112**
	0	(0.471)
	0	-0.039*
	0	(0.020)
]	350
FE model		0.629
(Robust)		18.63***
7.642***		[0.000]

Note: The asterisks ***, ** and * denote statistical significance at the 1, 5 and 10 per cent levels, respectively. Figures in (.) are the standard error, while the figures in [.] are the *p*-values.

Table 2 presents the estimated coefficient of Equation (6). Accordingly, the estimated coefficient of capital stock is insignificant. Moreover, our empirical results reveal that all the estimated coefficients are statistically significant at conventional levels, as expected. We find that the internet and mobile phones have the strongest positive impact on economic growth in our selected sample. A one per cent increase in internet and mobile cellular subscriptions would automatically

improve GDP by approximately 0.053 per cent and 0.112 per cent respectively. This result affirms the role of ICT and mobile phones in fostering economic growth in developing countries. This finding was also in accord with that of Roy et al. (2014) and Hassan (2003) who noted ICT's significant positive impact on output growth. Equally, the results reported in Table 2 shows that the fixed telephone line subscription has a negative impact on economic growth. Based on the results, a telephone line appears to be unimportant to GDP growth, implying that developing countries are no longer relying on telephone line.

Conclusion and Policy Implications

This study has achieved its objectives of investigating the impact of telecommunication technology on economic growth in developing countries over the period 2010 to 2016. The findings of the study show that there is a strong positive impact of internet and mobile phones on economic growth in the examined countries. The results also reveal that fixed telephone lines have a negative impact on economic growth in developing countries. The findings of the study imply that countries with advanced ICT could effectively enhance the process of long-term economic growth, as ICT became the important growth catalysts for the developing economies.

Since it has been conclusively established that ICT related services are vital for economic growth in developing countries, policy makers should set up an efficient and functional initiatives to promote ICT adoption and use. These include incentives such as tax-holidays for ICT related investments, promoting increased government and private sector technology expenditure aimed at improving and broadening existing ICT infrastructure in terms of hardware, lower tariffs on the importation of ICT related hardware and software goods and the adoption of emerging ICT protocols such as 5G based frameworks. Additionally, governments should promote policies to increase internet use, mobile cellular subscription, and advancements in telecommunication infrastructure to stimulate economic growth.

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Appendix: List of developing countries under review

No.	Country	No.	Country	No.	Country
1.	Albania	18.	Equatorial Guinea	35.	Namibia
2.	Angola	19.	Fiji	36.	Nigeria
3.	Armenia	20.	Gabon	37.	Pakistan
4.	Bangladesh	21.	Georgia	38.	Paraguay
5.	Belarus	22.	Ghana	39.	Peru
6.	Benin	23.	Guatemala	40.	Philippines
7.	Bolivia	24.	Honduras	41.	Romania
8.	Brazil	25.	India	42.	Senegal
9.	Bulgaria	26.	Indonesia	43.	South Africa
10.	Cambodia	27.	Jordan	44.	Thailand
11.	China	28.	Kazakhstan	45.	Tunisia
12.	Colombia	29.	Kenya	46.	Turkey
13.	Costa Rica	30.	Lebanon	47.	Uganda
14.	Cote D'ivoire	31.	Malaysia	48.	Ukraine
15.	Dominican Republic	32.	Mexico	49.	Vietnam
16.	Ecuador	33.	Moldova	50.	Zambia
17.	Egypt	34.	Morocco		

IMPACT OF MEDIA COVERAGE OF CONFLICT ON SUSTAINABLE DEVELOPMENT IN NIGERIA

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Abstract

The media are seen as the fourth estate of the realm which supervises societies and provide checks on governments. The media are not just seen as an enterprise like other business sectors of any society, but due to the sectors unique nature, society expects a particular role which the media must play in getting rid of social evils, educating people, criticising government policies and exposing other wrong doings in the society. It plays an indispensable role in achieving sustainable development, which is the convergence of economic, social and environmental targets set by the United Nations. This paper explores the sources of conflict as proposed by Peace Studies and Conflict experts. The paper also highlights the impact of media coverage of violent conflicts and its implications in attaining sustainable development goals for Nigeria, which include misrepresentation, and insensitivity of media. The paper recommended among others the need for continuous training of journalists in peace and conflict journalism and consideration of the plurality of the Nigerian State.

Keywords: Media, Conflict, Sustainable Development

Introduction

According to the Commission on Freedom of the Press (1947), the press plays an important role in the development and stability of modern societies and as such, the press has the moral obligation to consider the overall needs of society when making journalistic decisions in order to produce the greatest good. The media are seen as the fourth estate of the realm which supervises societies and provide checks on governments. The media are not just seen as an enterprise like others in the business sector of any society, but due to the unique nature of the sector, society expects a particular role which it must play in getting rid of social evils, educating people, criticising government policies and exposing other wrong doings in the society. Though, the Commission Report was way back in 1947 but the assertion of the report is still relevant today especially to a media setting in a democratic system of government where freedom of the press and speech are sacrosanct. Mass media often play a key role in today's conflict. Basically, their role can take two different and opposing forms. Either the media take an active part in the conflict and has responsibility for increased violence, or stay independent and out of the conflict, thereby contributing to the resolution of the conflict and alleviation of violence. Which role the media take in a given conflict, and in the phases before and after, depends on a complex set of factors, including the relationship the media have in actors and the independence the media have the power holders in society (Puddephatt, 2006).

Sustainable Development is the convergence of economic, social and environmental goals. The achievement of present day needs by having a society with healthy people and a growing economy, a properly managed environment, transparency and equitable distribution of resources and participation of people in decisions and actions that benefit them, taking into account the implications for the future. This implies that not only development is achieved but it is sustained to ensure the existence of people now and in future. Conflict is an impediment to attaining

sustainable development. It is a universal feature of human society. Violent conflicts leave behind consequences that impede all form of development, from capital flight, loss of human resources, destruction of environment and structures to other health related challenges/epidemics.

What is a Conflict?

Conflict is a situation where two or more individuals or groups try to pursue goals or ambitions which they believe they cannot share (Howard, 2004). According to Toit (2014), conflict exists in relationships and interactions between individuals and groups. These actors (individuals and groups) have, or at least believe they have, incompatible goals. Conflict becomes manifest or recognisable in the actors' behaviour toward each other. This behaviour can range from dialogue to threats and ultimately violence. They can also include parties deliberately refusing to engage with or even recognise each other. Behaviour is driven by strategic objectives as parties mobilise the power they have at their disposal to get what they want. Behaviour will also be shaped by emotions such as frustrations, anger, and fear, which in turn are shaped by the attitudes of the members of the different groups toward each other.

Howard (2004) explains that not all conflict is violent. He asserts that conflict is normal when there is change. Some people want change, but others disagree. If their disagreement for their conflict is managed peacefully, it can be a positive process. But when conflict is not managed properly, it becomes violent. In violent conflict, people fear for their safety and survival.

Reasons for Conflict

South African conflict expert Anstey (2008), outlines seven potential core sources of conflict. These sources can exist simultaneously and impact on conflict in different ways. Conflict can become manifest when:

- i. **Resources are scarce.** Conflicts often take place when there are not enough resources to go round. These can include physical goods such as land and control over mineral or oil reserves, but they can also include employment opportunities and access to political power and the wealth that people often accrue through power.
- ii. **Identities are threatened.** People form their identities by looking at the cultural, ideological, and religious beliefs they share with others of their group. They also define themselves in terms of who they are not and in so doing highlight the differences that exist between them and members of their groups. Conflicts can break out when groups feel that they lack the same opportunities as members of other groups or when people feel their symbols, cultures and languages are being threatened.
- iii. **Structural imbalances exist in a society.** Structural conflicts occur when actual or a perceived inequality exists in the way a society is structured. These conflicts often take on a class, ethnic, religious, or racial dimension because these inequalities tend to follow these fault-lines in a society.
- iv. **Groups have competing interests.** Parties frequently find themselves in conflict because of incompatible goals. The goals may not even be incompatible; it is enough for parties to believe the goals are incompatible.
- v. **People lack information.** Conflict may occur if parties misread each other's' goals and intentions and lack the information they need to correct misperceptions. Acting on incorrect

or too little information they may unintentionally provoke hostile responses, especially when there is a history of antagonistic relationships.

- vi. **Ambiguity.** This exist in situations and relationships that are in transition. Conflicts can happen during times of transition when there is ambiguity about the rules of the political game. Confrontations can occur when people have different expectations about what rights and privileges a transition should bring about.
- vii. **Tensions exist in independent relationships.** It is not uncommon for conflicts between groups to be influenced by leaders' personal antagonism. Leaders will mobilise their supporters in pursuit of their own selfish interests, but as conflicts escalates and more people are involved in clashes and confrontations, the conflict can become more complex as animosities between groups extend beyond the leaders' antagonisms.

Reasons of Ethno-Religious Conflicts in Nigeria

The International Crisis Group Report (2010) confirms that many observers have attributed conflicts in the far north (Northern Nigeria) to religious differences. Such differences, intolerance or even hatred are important; religion provides a simple instrument for stereotyping and demonising opponents, and encouragement to violence acquire greater potency once framed in religious terms. Religion provides a legitimising framework for violence that would otherwise be considered unacceptable. Given the desire of some to impose their faith on others or to fight any perceived imposition or discrimination, each group reacts to actions by the other with suspicions of hidden agenda and a sense of insecurity.

In a study by Sule (2015), the general knowledge of journalism is not enough for most media professionals to report ethno-religious conflicts effectively. As a result, the consequences can be reporting style that feeds on and repeats the worst stereotypes, the drama and the immediacy of conflict, and fuels their ignition into violence. The study further reveals that the media reportage was greatly influenced by ethno-religious, ownership, geopolitical and political ideology tendencies to the detriment of the ethics guiding the profession.

Owutu (2012) opines that ethno-religious conflicts are also caused by historical legacy of mistrust between rival groups, even biblically speaking. Examples are found among the mistrust in the Middle East, Christian crusades, aftermath of World War II, Northern Ireland, Serbians and Croatians, Tutsis and Hutus. In Nigerian perspective, Christians and Muslims become a special case study. This historical mistrust and hatred are not generally transmitted but visibly part of immediate reality occasioned by myth, socialisation and education. Having been a victim of this problem, one is toughed by this victim mentally, invariably uniting group members behind their leaders who may have acceded to power-being past victims. Victimised groups who are deprived of essentials of life turn to violence, which they direct to their rival group. This feeling of deprivation and unrealised expectations will, naturally, be interpreted as an ethnically motivated injustice.

Conflict and Sustainable Development

Mueller (2013) concludes that there are a number of ways through which insecurity disrupts economic activity. Violence leads to death and destruction. The resulting fear hinders economic activity directly through an increase in transport costs, capital flight or postponing of investments. However, there are also indirect effects like the breakdown of public services and political institutions.

According to Ikejiaku (2009), the costs of conflicts are horrific, and in many cases conflicts destroy the achievements of decades of economic and social development. Armed conflicts, in particular, involve complete economic paralysis, immense social costs and trauma, political quagmire and disintegration, as well as serious environmental degradation and dilapidation.

The Geneva Convention (2008) recognises that security is necessary for development, and that underdevelopment can lead to insecurity. The anecdotal experience is clear: armed violence disrupts markets; displaces populations; destroy schools, clinics and roads; and scare families, communities and societies.

Conflict undercuts or destroys environmental, physical, human and social capital, diminishing available opportunities for sustainable development. Conflict impacts on human well-being, reducing quality of life, the capabilities of people to live the kinds of lives they value, and the real choices they have. It results in the loss of lives, livelihoods and opportunity, as well as of human dignity and fundamental human rights. (Geneva Convention, 2006).

According to Botta and Abbasi (2015) armed conflicts have a detrimental impact on all three pillars of Sustainable Development – economic, social and environmental, as analysed through the 26 thematic areas derived from the Rio+20 document. The study also finds that excessive military spending is both the cause and effect of suffering and poverty worldwide. Therefore, cessation of wars and peaceful coexistence are paramount in consideration of preferred sustainable future.

Media and Conflict Coverage

With the media's power to influence public opinion and policy decisions on a local and global scale, there exist the strong potential to contribute to conflict mitigation. During periods of war and violent conflict, the function of the future of the print and electronic media to narrate and disseminate information to the public is all the more crucial. The escalation or diminishing of violence, the very outcome of war and policy decisions, and the trends in public opinion, can be greatly influenced by the manner in which journalists report and present sides of the conflict (PAT-MED, 2012).

It is not enough to focus on the actions of the combatants. Unless the underlying war economy is understood – and challenged – the 'peace' will be merely a temporary cessation of violence. Any strategy to tackle the underlying causes must also recognise how the media are an integral part of the strategy of combatants, with acts designed to intimidate and terrify or appeal to the wider international community. Control over the local media is an important objective of all parties in

conflict. Building an independent pluralist media must therefore be an objective of the peacemakers (IMS, 2006).

Adisa (2012) shows that the media do sometimes help in transforming conflicts by their nature of coverage especially by the local media. He points to how the Jos conflict was linked to the Plateau Radio-Television Service. According to him, the moment a conflict erupts, the mass media begin to seek for exclusive and bizarre scenes to report even if those scenes do not serve any purpose for the society. Again during conflicts, the media exaggerate casualty figures without credible and reliable sources, such as the police. Even when they report from the same conflict spot or police press release, they still give conflicting figures of casualty. These days, very few newspapers quote police sources; most times they quote unreliable sources and thereafter hide behind background and deep background forms of attribution. Also, the formation of different associations of journalists such as NAWOJ, Association of Christian journalists, Muslim Media Group etc. and segregation of Southern and Northern press axis are not helping matters. These unnecessary classifications, most times, affect and determine the direction of news of many newspapers and magazines on the national issues.

Media and Conflict Reportage in Nigeria.

Almost all of the reasons for conflict proposed by Anstey (2008), are visible in Nigerian ethnoreligious conflicts. There is a lack of information among warring factions which lead to both factions feeling their identities being threatened. Following the implementation of Shari'ah across Northern States, crisis erupted in Kaduna and Plateau States due to lack of proper information and also no existing fora and appropriate communications. Today, a city like Kaduna which is known to be mixed between different tribes and religions is divided along religious lines. The city is practically segregated between Muslims and Christians, making it more difficult to bring these two factions together. To this day, there is a continuous mistrust among communities. The same way, lack of information and ambiguity are the main promoters of farmers and herders clash in Nigeria. The resources for these two factions appear scarce and there is perceived structural imbalance among these factions. Political elites and opinion leaders are also not helping matters here. This class instigate their followers against their opponents to create more tension, deepening divisions and distrust to achieve their personal interests.

The impact of violent conflict on sustainable development is visible in almost all conflict zones. Whenever farmers and herders clash, animals which are livelihoods of herders are killed thereby depriving and reducing their wealth, and at the same time, farm products are destroyed which the farmers rely on for their sustenance and income. This directly challenges the sustainable development targets aimed at reducing poverty and ensuring food security.

The recent upsurge of violence in the North Western part of Nigeria has led to total destructions of communities including health facilities, educational facilities, markets, food stores etc. while at the same time, herds of animals in hundreds or even thousands are killed or stolen. The victims thus become a burden to society and governments as they must be provided with shelter and feeding, funds must be sourced for reconstruction of communities which may have been used for new improved facilities, thereby pulling back the attainment of sustainable development targets.

Invariably, the media is always at the cross roads of such crisis. The media feeds the society with information, not only current events and happenings but also analysis of those events. The way and nature the media present news, analysis or report will go a long way in determining how conflicts will transform. The usage of words to identify groups can promote stereotype sentiments which will help others shape their opinion and ultimately determine attitude towards that group. Nigerian media are divided along regional, ethnic and religious lines. For example, in 2001, Thisday Newspaper based in Lagos carried an article in which millions of Muslims felt offended. That article led to a religious clash between Muslims and Christians in Kaduna in which tens of lives were lost, millions of Naira worth of properties and government facilities were destroyed.

The recent END SARS protests saw Sahara Reporters reporting on alleged police and military brutalities against civilian protesters without reliable and credible sources nor clear evidence of victims. This allegation has damaged Nigerian reputation in the international community and made the International Criminal Court to announce it will look into the allegations. Funds meant for development must be diverted to Public Relations activities and lobbying to repair the damaged reputation and legal services at the International Criminal Court.

Journalists also report the religion of minority victims of criminal and terrorist attacks making it look like a systematic attack against them due to their faith or belief. This nature of news frames led to the State Department of the United States of America to label Nigeria as a country against religious freedom. With these kinds of report, more funds meant for development will also be diverted to Public Relations programmes and lobbying to try and reverse that label of being a religious persecuted country. These types of report can lead to international sanctions which will translate to lower revenues and that will ultimately mean less funds for sustainable development. The incessant depiction of pictures of young men with guns and herds of cows has led to the belief that wherever herders are, they carry such dangerous sophisticated weapons. The Daily Trust Newspaper conducted a fact check against this pictures in May, 2016 and found the pictures to be from East Africa in countries like South Sudan and Kenya. Media outlets are also quick in blaming certain groups for heinous crimes without proper facts and investigations, as most media organisations hardly refer to authorities before reporting figures, casualties and suspects which is completely unprofessional, counterproductive and against ethics of journalism.

Conclusion

There is a sense of suspicion among different ethnic groups and religions coupled with mistrust of each other and also a sense of insecurity. Journalists also do frame stories in such a way that they promote these feelings among different groups which heightened the feeling of been threatened by perceived enemies. This shows that most ethno-religious conflicts in Nigeria are caused by struggle for scarce resources, threatened identities, as well as lack of information and ambiguity. The media has also failed to measure up to expectations on conflict reporting as it is bedevilled with stereotyping, ethnicity, regionalism and lack of objectivity. Some of the reportage also end up creating more problems for the country by forcing the diversion of funds meant for sustainable development to other trivial issues of international politics and damage control, as well as risking economic sanctions against the country which will ultimately create more scarcity to an already scarce developmental resources.

Recommendations

Based on the above discussions, the following recommendations are made:

1. Continuous training of journalists in peace and conflict journalism
2. Objective reporting/being ethical
3. Sustained public enlightenment campaign by the media
4. Consideration of the plurality of Nigerian State

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FLORISTIC COMPOSITION OF THE VEGETATION OF RUMA KUKAR JANGARAI FOREST RESERVE (DAJIN RUGU), KATSINASTATE

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Abstract

The study was conducted at Ruma-kukar Jangarai forest reserve Katsina State in the year 2008. The purpose of the study was to identify, describe the species composition and to determine the diversity, evenness and richness indices of the species in the area. Sampling plots of 50m x 50m with 20m intervals was adopted. The area was rich in woody and non woody species. Among the species found in the study area, trees had the largest number followed by shrubs; a total number of thirty five (35) species were found in the study area. The most dominant specie in the study area was found to be cassia singueana. This is due to the fact that the specie is highly resistant to the agent of degradation such as environmental agent (drought, desertification, human and animal in their search to satisfy their daily needs; it is a fast growing species and its seeds easily germinate (NAS, 1980). Whereas, the least specie recorded in the study area was Albeziachevalieri and sclerocarybirrea. This is because these specie does not grow rapidly; the seeds are difficult to germinate and cannot withstand environmental stress (NAS, 1980).It is therefore recommended that proper management practices should be observed to conserve it.

Keywords: Floristic, Composition, Vegetation, Forest, Reserve

Introduction

Vegetation refers to the ground cover provided by plants and is, by far, the most abundant biotic element of the biosphere (Causton, 1998). Vegetation is also the plant cover of the earth and comprises all plant species growing in a very great diversity of assemblages. The availability of water and its distribution is the yard stick for the various existing vegetation.

Ray, (1987) reports that, vegetation is also referred to as plants of an area considered in general, or as communities, but not taxonomically. It is part of the surface in an area without significant human ecological effects and is dominated by the micro-climatic characteristics. It is the total cover in a particular area or on the earth as a whole. The term vegetation does not by itself, imply anything regarding species composition, life form structure, spatial extent “naturalness or any other specific botanical or geographic characteristics. It is broader than the term flora, which exclusively the vegetables species composition.

Hornby (1998) defines wood as a hard material that the trunk and branches of a tree are made of. Woody plants are plants that compose of lignin, which is the characteristics substance, while those that are composed of cellulose are called herbs (Hugus and Philipe, 1993). Woody plant stem contains at least some wood while herbs are without wood (Leteuzey, 1982). Investigations that have been mounted for the exploitation of potential materials in tropical forest have tended to focus on woody plants, on the ground that trees lock away virtually all the biomass produced in the tropical forests (Myers, 1984).

Very few geographers or ecologists develop the interest to study all aspects of vegetation patterns worldwide. For this reason, specialists have emerged, each specialist being responsible for a particular aspect of the overall investigation of the plant cover of this planet (Gareth, 1979).

Material and Method

Area of Study

The study was conducted at Ruma – Kukarjangerai forest reserve located in the north western part of Katsina state, it lies about 80km south west of Katsina capital city (Mainwada, 2001). The reserve falls within four Local Government Areas, namely, Safana, Batsari, Dan-musa, and Kankara. It is located between latitudes 11°02' and 13°03'N longitude 6°05' and 9°02'E occupying an area of 475.58 square miles or 304380 acre or 121762 hectares or 765.37km². It borders Niger Republic in the north, Zamfara state to the northwest and River Gangore to the southern part (Mahmudu, 1965) The Maximum temperature range between 29°C to 38°C. The mean average rain fall range between 400mm to 1300mm potential vaporization is 6.9 to 7.2mm per day (Maiwada, 2001).

Reconnaissance Survey

A reconnaissance survey was carried out over the entire area of the study. The aim of this survey was to identify the various vegetational formations comprising the area and also to ascertain the nature of work (plots demarcation, data collection) that is to be done in the area.

Data Collection

The data was collected on the vegetation of Ruma-kukarjanganare forest reserve. Specimens were collected during the sample survey, which was conducted on five (5) plots measuring 50m x 50m. During the collection, some field sheets (see appendix 2) were carried along for easy record of data.

The data collection involved visiting each plot and within each plot all woody plants were identified, counted and then recorded on the field sheet. Each species was scored in term of the number of individual present per plot. During sampling, only trees and shrubs were identified.

Sampling Techniques

The point centered quarter method as described by Mueller and Ellenberg (1974) was used. Ten transects distributed using stratified sampling method (Adegeye and Sittoh, 1985) was adopted. Sampling plots measuring 50m x 50m was randomized along transect to collect information on trees /shrubs.

Data Analysis

The data collected on the various types of woody plants were subjected to analysis by descriptive statistics using percentages. Similarly, the diversity index (H) or Shannon Weiner index, uniformity index (E) and species richness or variety index (d) was also computed as follows:
Frequencies and percentages

* Density index (H) or Shannon Weiner index This was computed using the following formula:

Where N = total number of individuals ni = number of individuals in species (i) K = total number of species

* Evenness index (E)

This was computed using formula:

Where H = Shannon weiner index

Hmax maximum expected diversity

Hmax = LogK

*Species richness or variety index (d)

This was computed using the following formula:

where S = number of species

N = number of individuals

Results and Discussion

Identification of trees

Table 1: Trees of Ruma Kukar Jangarai Forest Reserve

S/NO	Species botanical name	Species local name	Number present	Life form
1	<i>Poliostigmareticulatum</i>	Kalgo	24	Tree
2	<i>Detariummicrocarpum</i>	Taura	8	Tree
3	<i>Dialiumquineense</i>	Tsamiyarkurmi	10	Shrub
4	<i>Detariumsenegalensie</i>	Taurahurmi	4	Tree
5	<i>Tamarindusindica</i>	Tsamiya	9	Tree
6	<i>Cassia sinqueana</i>	Rumfu	74	Shrub
7	<i>Cassia sicberiana</i>	Gama fada	3	Shrub
8	<i>Acacia macrothyrsa</i>	Gwanno	4	Tree
9	<i>Acacia Senegal</i>	Dakwara	10	Tree
10	<i>Acacia polyacantha</i>	Farin chin haramata	12	Tree
11	<i>Acacia macrostachya</i>	Gardaye	28	Shrub
12	<i>Acacia nilotica</i>	Bagaruwa	3	Tree
13	<i>Dichrostachyacinerea</i>	Dundu	10	Shrub
14	<i>Albeziachevalieri</i>	Katsari	1	Shrub
15	<i>Parkiaclappertoniana</i>	Dorowa	3	Tree
16	<i>Prosopisafricana</i>	Kiriya	2	Tree
17	<i>Ostryoderrisstuhlmonnii</i>	Durbi	5	Tree
18	<i>Afrormosialaxiflora</i>	Makarfo	4	Tree
19	<i>Ximeniaamericana</i>	Tsada	14	Shrub
20	<i>Ziziphusabyssinica</i>	Magariyarkura	13	Shrub
21	<i>Ziziphusspina – Christi</i>	Kurna	10	Tree
22	<i>Boweliadalziellii</i>	Hano	20	Tree
23	<i>Khayasenegalensis</i>	Madaci	14	Tree
24	<i>Lanneakerstingii</i>	Faru	12	Tree
25	<i>Lanneaschinperi</i>	Farundoya	14	Tree
26	<i>Sclerocarybirrea</i>	Danyo	1	Tree

27	<i>Steganotaeniaaraliacea</i>		3	Tree
28	<i>Diospyrosmespiliformis</i>	Kanya	18	Tree
29	<i>Butyrospernumparadoxum</i>	Kadanya	15	Tree
30	<i>Holarrhena floribunda</i>	Bakinmutum	3	Tree
31	<i>Adina microcephala</i>	Kadanyarrafi	8	Tree
32	<i>Vitexsimplicifolia</i>	Dinyarbiri	18	Shrub
33	<i>Vitexdoniana</i>	Dinya	20	Tree
34	<i>Borassusaethiopum</i>	Giginya	20	Tree
35	<i>Hyphaenathebaica</i>	Goriba	21	Tree

Source: Field survey, (2008).

Among the 35 species of woody plants found in table 1 above, twenty (26) species were trees and nine (9) species were shrubs, belonging to 15 families.

Density of Species

Family mimosaceae record the highest number of species followed by caesalpinaceae, anacardiaceae, papilionaceae, Rhamnaceae, verbanaceae and palmae while Rubiaceae, Olacaceae, Burseraceae, Meliaceae, Ebanaceae, sapotaceae, Apocynaceae and umbelliferae recorded the least number of species. The number of species per family is presented in table 2.

Table 2: Family richness in species

Families	Number of species
Anacardiaceae	3
Apocynaceae	1
Burseraceae	1
Caesalpinaceae	7
Ebenaceae	1
Mimosaceae	9
Meliaceae	1
Olacaceae	1
Papilionaceae	2
Palmae	2
Rhamnaceae	2
Rubiaceae	1
Sapotaceae	1
Umbelliferae	1
Verbenaceae	2

Source: Field survey (2008).

Table 2 indicates that mimosaceae and caesalpinaceae were the most dominant families followed by Anacardiaceae, papilionaceae, plamae, Rhamnaceae and verbenaceae.

Number of plants per unit area

In table 3 plot III has the highest number of woody plants (53) with a relative density of 0.0001 while the least number of woody plants was recoded in plot II (39) with 0.0001 as relative density.

The number of tree plant per unit area is represented in table 3.

Table 3: Number of plants per unit area

Plots	Total no of woody plants	No of woody plants per ha	Relative density	Number /m ²
I	44	0.0044	0.0001	0.0000044
ii.	39	0.0039	0.0001	0.0000039
iii.	53	0.0053	0.0001	0.0000053
iv.	40	0.004	0.0001	0.000004
v.	49	0.0049	0.0001	0.0000049
Total	225	0.0025	0.0005	0.0000225

Source: Field survey (2008).

Index of diversity, evenness and richness

Table 4 shows indices of diversity, sclerocarybirrea (2.621) and Albiziachevalieri (2.621) species recorded highest diversity index while cassia signueana (2.290) species recorded the least sclerocarybirrea was the most evenly distributed (1.697) followed by Detariumsenegalensie species while the least was cassia signueana. However the richest specie was cassia singueana despite having the least evenness number and the least evenness number and the least was cassia sieberiana.

Species	Number of species	Diversity index	Evenness index	Richness index
<i>Poliostigmareticulatum</i>	24	2.542	1.646	1.016
<i>Dialiumguineense</i>	10	2.597	1.681	3.433.
<i>Detariummicrocarpum</i>	8	2.603	1.685	2.670
<i>Detariumsenegalensie</i>	4	2.615	1.683	1.44
<i>Tamarindusindica</i>	9	2.600	1.683	3.052
<i>Cassia sinqueana</i>	74	2.290	1.483	27.850
<i>Cassia sicberiana</i>	3	2.617	1.694	0.763
<i>Acacia macrothyrsa</i>	4	2.615	1.693	1.144
<i>Acacia Senegal</i>	10	2.575	1.681	3.433
<i>Acacia polyacantha</i>	12	2.590	1.677	4.196
<i>Acacia macrostachya</i>	28	2.528	1.637	10.301
<i>Acacia nilotica</i>	3	2.617	1.694	0.763
<i>Dichrostachyscinerea</i>	10	2.597	1.681	3.433
<i>Albeziachevalieri</i>	1	2.621	1.697	0
<i>Parkiaclappertoniana</i>	3	2.617	1.694	0.763
<i>Prosopisafricana</i>	2	2.619	1.696	0.381
<i>Ostryoderrisstuhlmonnii</i>	5	2.612	1.691	1.526
<i>Afroomsialaxiflora</i>	4	3.615	1.693	1.144
<i>Ximeniaamericana</i>	14	2.582	1.672	4.959

<i>Ziziphusabyssinica</i>	13	2.586	1.674	4.578
<i>Ziziphusspina – Christi</i>	10	2.597	1.681	3.433
<i>Bowelliadalziellii</i>	20	2.558	1.656	7.248
<i>Khayasenegalensis</i>	14	2.582	1.672	4.959
<i>Lanneakerstingii</i>	12	2.590	1.677	4.196
<i>Lanneaschinperi</i>	14	2.582	1.672	4.959
<i>Sclerocarybirrea</i>	1	2.621	1.697	0
<i>Steganoaeniaaraliacea</i>	3	2.617	1.694	0.763
<i>Diospyrosmespiliformis</i>	18	2.567	1.662	6.485
<i>Butyrospernumparadoxum</i>	15	2.578	1.669	5.341
<i>Holarrhena floribunda</i>	3	2.617	1.694	0.763

Table 4: Diversity, evenness and species richness indices

<i>Adina microcephala</i>	8	2.603	1.685	2.670
<i>Vitexsimplicifolia</i>	18	2.567	1.662	6.485
<i>Vitexdoniana</i>	20	2.558	1.656	7.248
<i>Borassusaethiopum</i>	20	2.558	1.656	7.248
<i>Hyphaenathebaica</i>	21	2.554	1.654	7.630

Source: Field Survey, (2008).

The study area has diverse woody plant species. Among the species found in the study area, there were more trees than shrubs. According to Hugus (1993), shrubs are displaced by the trees in an area due to domination of the trees.

A total number of thirty five (35) species were found in the study area, this confirms the findings of Fatubarin (1985) that says up to twenty four (24) different species could be found in an area. Another important thing is that the number of species recorded was greater than what Shinkafi (1990) observes in his study at Zamfara forest reserve.

The most dominant species in the study area was found to be *cassiasingueana*. This is due to the fact that the specie is highly resistant to the agent of degradation such as environmental agent (drought, desertification, human and animal in their search to satisfy their daily needs). It is a fast growing specie and its seeds easily germinate (NAS, 1980). Whereas the least number of species recorded in the study area was *Albeziachevalieri* and *sclerocarybirrea*. This is because these species are not growing rapidly; their seeds are difficult to germinate and cannot withstand environmental stress (NAS, 1980).

As regards to diversity index, the ratio between *sclerocarybirrea* and *cassiasingueana* diversity index is 0.31, meaning *sclerocarybirrea* has 0.331 times greater diversity index than *cassiasingueana*. Therefore, *sclerocarybirrea* is more diverse species. In another development *cassiasingueana* has the highest species richness index followed by *Acaciamacrosiachya* species. This is because the species were the most dominant in the area. Therefore they recorded greater species richness as agreed by Knopf (1996). The result confirms that species richness and diversity are two different measures of species distribution and each tell us something different about a particular community (Odum, 1971).

In terms of evenness, the ratio between *Acacianilotica* and *khayasenegalensis* is 0.022. This shows that *Acacia* species has greater species evenness index. Therefore, *Acacianilotica*, has 0.022 time more evenness than *khayasenegalensis*. This may be due to relative abundance of individuals within a species (Kricher and Morrison, 1998).

Conclusion

The study area is rich in woody and non woody species and the indices inform us that the area is an old community. Trees and shrubs forward the principal life form and that the most dominant species in the area was the richest.

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ASSESSMENT OF HOUSEHOLD FUELWOOD CONSUMPTION IN KATSINA METROPOLIS

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Abstract

*This study analyzes the household consumption of fuelwood. The main objective of the study was to identify the level of fuelwood consumption among the households in Katsina metropolis. Multistage sampling technique was used. Five wards out of the 12 wards in Katsina metropolis were randomly sampled. 20 households in each of the selected wards were randomly sampled. A total number of 100 questionnaires were administered. Simple descriptive statistics were used to analyze the data. The result shows that 94 % of the respondents were buying fuelwood from the market, 4 % of the respondents sourced the fuelwood from nearby bushes and only 2 % sourced the fuelwood from hand picking. Based on the result, majority of the respondents mostly sourced the wood on a daily basis. The result showed that 8 % of the respondents source the fuelwood on monthly basis, 14.0 % on a weekly basis and 78% on a daily basis. Based on seasonal use of fuelwood consumption, the result showed that 28 % of the respondents were using fuelwood during rainy season, while 72 % were using fuelwood during dry season. 13 % of the respondents were using fuelwood because of its local availability, 61% were using fuelwood because it was relatively cheap and 26 % are using fuelwood because of the family size. The preferred tree species were *C. micranthum* (51%), *A. leiocarpus* (24 %), *G. senegalensis* (13 %) and *P. reticulatum* (12 %). The species are valued for their combustible ability when compared to other.*

Keywords: Household, Fuelwood Consumption, Katsina Metropolis.

Introduction

Forest is a source of livelihood for many farmers and rural households in developing countries, especially in sub-Saharan Africa (Abebaw, 2007). Biomass is one of the most important renewable energy Sources that contribute decisively to the energy needs of modern society and the environmental prediction, in both industrialized and developing countries. A very important source of biomass is wood and especially fuel wood (Sanda, Sambo & Mikailu, 1991).

The exploitation of fuel wood by the inhabitants of any area is an inevitable consequence of human existence. This is because fuel wood is a vegetal resource which provides the main source of domestic fuel for both the rural and urban household (Ikurekong, Esin & Mba, 2009). Approximately 2.5-3.0 billion people (40-50 percent) of the world population rely on wood for fuel, both for warmth and food preparation (Adeniyi & Felix, 2011). Global production of wood fuel is expected to increase moderately from 1885 million m³ in 2000 to 1921 million m³ in 2020. This shows the demand scenario of wood fuel, which is increasing rather than decreasing worldwide (FAO, 2000). In fact Africa has the highest per capita fuel wood consumption of 0.31 m³ per year compared to any other continent.

In Africa, wood supplies up to 58% of all the energy requirements; demand for wood supplies far exceeds the rate of growth (FAO, 2002). It is pertinent to note that man's inventions related the use of the fire and the development of the art of cultivation made wood to be the supreme among all the sources of energy. It is the most abundant, cost less in places it is freely collected/exploited. However, as a result of population increase, man's dependence on wood as a source of fuel and energy started showing signs of inadequacy. This level of demand has reached an alarming rate that over exploitation is taking place due to desire to have a steady supply of fuel wood, and other vegetal resources. Energy has a major impact on every aspect of our socioeconomic life. It plays

a crucial role in the economic, social and welfare development of any nation. Insufficient supply of energy restricts socioeconomic growth and adversely affects the equality of life.

Consequently, fuel wood exploitation from natural environment, land use practice ignores conservation principle; protection techniques are conflicting with environmental sustainability. The capital formation for alternative energy sources are beyond the capacities of the rural economics (Sanda, 1991). This has both local and global environmental consequences, as well as implication on human health and livelihoods. In most sub-Saharan African countries, the rate of exploitation exceeds the global annual average of 0.8% (Babayara & Saleh, 2010). The key drivers of deforestation in Africa are human activity and one of the most significant is removal of wood for energy (Anthony & Ojochenemi, 2012). Fuel wood consumption accounts for 90 percent of total African energy consumption. This makes wood fuel a major local and global environmental issue in Africa.

Statement of Problem

There is a growing dependence on natural woodlands and forest resources for household fuelwood supply and household income in Nigeria (Hassan, Mbuli & Dlamini). This is further exacerbated by rapidly increasing population especially in Northern Nigeria where over 90 percent of the population depends on fuelwood as a source of energy for cooking. Unfortunately, there is no commensurate effort by the government and other stakeholders to invest in responsible forest management. As a result, there is heightened deforestation and land degradation arising from uncontrolled fuelwood consumption which continues to pose threats to the environment.

Methodology

Katsina state was carved out Kaduna state on September 23, 1987 by the then regime of General Babangida. It is made up of two emirates which feature prominently in the establishment of seven Hausa kingdoms. Katsina state covers an area of 23,938 km² and is located between latitude 11°08' N and 13° 22' N and longitude 6°52' E. The state is bordered to Niger republic to the north and Kano state to the east, Kaduna state to the south and Zamfara state to the west. Katsina state forms part of the extensive plain known as high plains of Hausa land (Katsina State Government).

Data collection and Analysis

Multistage sampling was used to sample five wards (Kangiwa, Arewa A, Kudu I, Kudu II and Yamma I) out of the 12 wards (Kangiwa, Gabas I, Gabas II, Arewa A, Arewa B, Kudu I, Kudu II, Kudu III, Shinkafi A, Shinkafi B, Yamma I and Yamma II) that make up Katsina metropolis. Out of the five wards, 20 households were randomly selected from each of the five wards, making a total of 100 households. One hundred (100) structured questionnaires were formulated and distributed in study area and all were retrieved.

The data were analyzed using simple descriptive statistics in terms of frequency and percentage.

Results and Discussion

Sources of fuel wood

Table 1. Sources of household fuelwood in the study area

Sources	Frequency	Percentage (%)
Buying from market	94.0	94.0
Nearby Bushes	4.0	4.0
Hand picking	2.0	2.0
Total	100.0	100.0

Source: Field survey, 2019

The sources of fuel wood in the study area included market, nearby bushes and the nearby surrounding. Majority, that is 94 per cent of the respondents were purchasing the fuelwood from the market, 4 per cent and 2 per cent of the respondents were obtaining their fuelwood from nearby bushes and hand picking from the surrounding respectively.

Periodic use of fuel wood

Table 2. Periodic use of fuel wood by the households

Periodic Sourcing	Frequency	Percentage (%)
Monthly	8.0	8.0
Weekly	14.0	14.0
Daily	81.0	81.0
Total	103.0	103.0

Source: Field survey, 2019

Table 2 shows that 8 per cent of the respondents obtained their fuelwood on monthly basis, 14 per cent of the respondents obtained their fuel wood on weekly basis and 81 per cent obtained their fuelwood on daily basis.

Seasonal Fuelwood Consumption

Table 3. Fuelwood consumption based on season

Seasoning	Frequency	Percentage (%)
Rainy season	28.0	28.0
Dry season	72.0	72.0
Total	100.0	100.0

Source: Field survey, 2019

Table 3 shows that majority, that is 72 per cent of the respondents were using more fuelwood in the dry season, while 28 per cent of the respondents were using relatively less fuelwood in the rainy season.

Reason(s) for fuelwood consumption

Table 4. Reasons for fuelwood consumption

Reason	Frequency	Percentage (%)
It is readily available	13.0	13.0
It is cheap	61.0	61.0
Due to large family size	26.0	26.0
Total	100.0	100.0

Source: Field Survey, 2019

Table 4 shows that majority, that is 61 per cent of the respondents were using fuelwood because of it is relatively cheap, 26 per cent were using fuelwood due to large size of their family and 13 per cent were using fuelwood because of its local availability.

Fuelwood species used

Table 5. Fuelwood species preferred by the users

Fuelwood species	Frequency	Percentage (%)
<i>Combretum micranthum</i>	51	51
<i>Anogeisus leiocarpus</i>	24	24
<i>Guiera senegalensis</i>	13	13
<i>Piliostigma reticulatum</i>	12	12
Total	100	100.0

Source: Field survey, 2019

Table 5 shows that 51 per cent of the fuelwood users preferred *Combretum spp.*, 24 per cent preferred *Anogeisus spp.*, 13 per cent preferred *Guiera spp.* and only 12 per cent of the fuelwood users in the study area preferred *Piliostigma spp.*

Problems faced by the users

Table 6. Problems faced in using fuelwood

Problems	Frequency	Percentage (%)
Smoke	24.0	24.0
Hammattan	46.0	46.0
Difficulty in storage	30.0	30.0
Total	100.0	100.0

Source: Field survey, 2019

Table 6 shows that 46 per cent of the fuelwood users were facing problems in hammattan season like fear of fire outbreak and high consumption of the fuelwood by fire. 30 per cent of the users were finding it difficult to store the fuelwood, especially during the rainy season and 24 per cent of the users were facing the problem of too much smoke, especially if the fuelwoods were not fully dried.

Discussion

The major source of the fuelwood of the respondents was the market. This may be due to the fact that the nearby forests have been highly deforested and people depend mainly on local market for their fuelwood supply.

Majority of the respondents used fuelwood on daily basis. This is probably because most of the people in the area could not afford buying large amount of fuelwood to use for weeks or for a month.

Most households in the study area consumed more fuelwood in dry season than in rainy season. This may be largely due to low temperature experienced in dry season which forces household to use more energy for heating purpose.

Most of the respondents were facing problems in the hammattan season. This is as a result of fire outbreak and high consumption of the fuelwood by fire as a result of windy weather. Some of them were finding it difficult in storing the fuelwood especially during the rainy season.

Conclusion

Combretum micranthum is the most preferred wood species used by the households of Katsina metropolis and most of the households use fuelwood at higher rate during dry season. Most of the fuelwood users face problems of purchasing more fuelwood during hammattan.

Recommendations

The government should provide various means of sourcing fuel by technology advancement and the means provided should be available affordable. This will reduce the consumption rate of fuelwood.

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EFFECT OF EMPLOYEE'S FIDELITY ON RECORDS SECURITY AS ASSESSED BY PRINCIPAL OFFICERS IN HASSAN USMAN KATSINA POLYTECHNIC

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Abstract

This study examines the effect of employee's fidelity on records security as assessed by Principal Officers in Hassan Usman Katsina Polytechnic. The population of the study was made up of 66 Principal Officers of Hassan Usman Katsina Polytechnic classified as follows; 25 Head of Department, 25 Examination Officers, Seven College Directors and Nine selected Principal Officers. All the population was used as sample so as to have greater reliability. The data were collected using structured four point Likert type questionnaire, the structured questionnaire was validated by panel of experts which includes Senior Lecturers in the Department of Office Technology and Management. The reliability coefficient of the questionnaire 0.79 and 0.81 using person product moment correlation coefficient. Findings revealed that infidelity of employees, negative attitude of employee, improper security of records, lack of record keeping policy, were identified as the associated problems and having negative implications. Arising from the findings, the following recommendations are proffered; only professionally trained employee in records management on the idea of fidelity be employed over time and/or existing staff be sent for necessary training through in-service programmes. Induction programmes for new employee and refresher courses for old employee are also recommended.

Keywords: Record Security, Management, Employee Fidelity

Introduction

Universities, Colleges and Polytechnics face a barrage of information, security incidents such as data theft, malicious software infections, hacks into their computer networks and infiltration of other entities via their networks. Academic institutions are vulnerable to exploitation due to a combination of several factors, including: abundant private and research data; relatively open networks with significant bandwidth, high end-user turnover, at-risk activities, and a decentralized structure; and extensive cyber links with the government, private sector, and other academic institutions (Steffani, 2006).

Records are valuable assets of organizations. Good records management not only helps protect records but also enhances organizations' operational efficiency. Records management is an important function of an organization. The concept of record keeping is not new. The frailty of human memory and the growing complexity of administration gave birth to the graphic representations of events in pictorial form (Tagbotor, Adzido, and Agbanu.,2015).

It is believe that good and proper record security is evidence of a well-governed organization and should be seen as an integral part of, rather than incidental to, any business (ISO, 2001). The results of paramount researches on the role and importance of human force in growing and developing organizations and on human communities' growth emphasize on the fact that no community is developed unless it has addressed and developed its human resources (Awe, 2000). The relationship between employee and employer is changing, especially the understanding of commitment and loyalty. An ethical employee owes the company a good day's work and his or her best effort, whether the work is stimulating or dull. A duty of loyalty and best effort are primary obligations as employees, but what they mean can change. A manager who expects a twentieth-century concept of loyalty in the twenty-first century may be surprised when workers express a sense of entitlement, ask for an upward review after six months, or leave for a new job after twelve months.

Statement of the Problem

The past two decades have revolutionized the way in which information is generated and stored. It would not be an overstatement to say that record keeping problems are common to the different levels of the education sector. It is however becoming clearer that it is more pronounced in colleges and the university system because accurate, reliable and trustworthy records that fulfill evidential requirements are being created but not properly secured (Egwunyenga, 2009). This therefore becomes an issue of great concern to government, parents, students, individuals and organizations. Many management staff complain of shortage of funds, and material resources. The reality reveals gross inadequacy of qualified personnel especially in the aspect of employee's infidelity. Hassan Usman Katsina Polytechnic faces similar problem of employee's fidelity on the security of records. The records management in Hassan Usman Katsina Polytechnic may likely be the same as other institution of higher learning in Nigeria. This motivated the researcher to examine the effect of employee's fidelity on the security of records in Hassan Usman Polytechnic, so as to find out whether it is the same as other institution of higher learning in Nigeria or it differs.

Review of Literature

Concept of Records

In order to define records management, the concept "record" needs to be fully explored. A record is defined either in terms of the physical tangible format in which it appears, or in terms of the information it contains. It must be noted that records differ in format or size and have different contents. According to Yusof & Chell (1998), any definition of records is a pragmatic one. The definition change with the passage of time and as the profession gets involved in more complex issues.

Cornwell Management Consultants (2001) defines a record as a document produced or received by a person or organization in the course of business and retained by that person or organization. Langemo (1995) further defines a record as the memory of the organization, the raw material for decision-making and the basis for legal defensibility. A record is viewed by Penn, Pennix & Couson (1994) as any information captured in reproducible form that is required for conducting business. Roberts (1998) states that records are information created, collected or received in the initiation, conduct or completion of an institution or personal activity. Based on the definitions above, the concept record can be defined as the end product of the business activity through which the performance of employees can be measured and thus enforce accountability. It is created or received by employees as evidence in the course of their normal operation in an organization.

Records contain information that is a valuable resource and an important business asset. A systematic approach to the management of records is essential for organizations to protect and preserve records as evidence of activities and transactions. The University of Pretoria (2010:n.p) states that a record is information that is recorded in any form; created or received routinely in the course of the university's business or correspondence; and retained by the university as evidence of such activity. The International Standards Organization [ISO 15489] (2001:3) defines a record as: Information created, received, and maintained as evidence and information by an organization or person, in pursuance of legal obligations or in transaction of business. A record is therefore any recorded information that is created, received and maintained as evidence of what happened and when it happened in pursuance of legal and regulatory obligations, regardless of the format in which it was created as stated by the University of South Africa. Records can either be electronic (such as emails, internet content, documents, databases, and digitally recorded images) or physical/printed (any information that is paper-based, such as books, newsletters).

Records Lifecycle

All records pass through a lifecycle. Basically, the record is created, actively used for a time, and then stored in case of queries or other referrals before it is too old to be of any further use. At that point it should either be destroyed or transferred to an archive as part of the permanent record of the organization. Often, the driver for the culling process is lack of space rather than any adherence to a cohesive policy (Tagbotor, Adzido, and Agbanu.,2015).

Records Security and Management

Personnel records management is important in all organizations. Langemo (1994) defines records management as the professional management of information in the physical form the time records are received or created through their processing, distribution and placement in a storage and retrieval system until either eventual elimination or identification for permanent retention in the archives. Kennedy and Schuder (1994) defines records management as a function of providing control of records from creation, or receipt through their processing, distribution, organization, storage and retrieval to their ultimate disposal.

The international standard organization on the other hand views records management as a field of management responsible for the efficient and systematic control of the creation receipt, maintenance use, and disposition of records management focuses on procedures and systems for the creation, storage retrieval and disposal of records.

The ISO 15489 Standard on Records Management (2001) defines records management as the field of management responsible for the efficient and systematic control of the creation, receipt, maintenance, use and disposition of records, including the processes for capturing and maintaining evidence of and information about business activities and transactions in the form of records. The definition contextualizes records management within the records life-cycle concept and emphasizes the evidential nature of records.

Records management is the process by which internally or externally generated physical or electronic records are managed from their inception, receipt and storage, all the way through to their disposal (Ngulube, 2000).

The Role of Employees in Records Security in an Organisation

According to Sanderson & Ward (2003) the importance of records management is increasingly being recognized in organizations. It is therefore the responsibility of records managers to ensure that they gain the attention of decision-makers in their organizations. Gaining recognition is all about convincing management of the role of records management as enabling unit in an organization.

Employees require information in order to carry out their official duties and responsibilities efficiently and effectively in a transparent manner. Records represent major sources of information and are almost the only reliable and legally verifiable source of data that can serve as evidence of decisions, actions and transactions in an organization (Wamukoya, 2000). According to Northwest Territories (2002), the role of records management is to ensure that members of staff involved in different operations have the information they need, when necessary.

Among their other purpose, records also act as raw materials for research in various disciplines, including science research, which is an important ingredient of socio-economic development.

Furthermore, records can be used as information resource for strategic planning purposes. The service provided by records management is therefore of vital importance to both employees (end users) and organizational success. As outlined earlier, the primary function of records management is to facilitate the free flow of information throughout the entire organization. Most importantly, it remains the function of records management to ensure that an organization's records are safe for future reference (De Wet & Du Toit, 2000).

Benefits of Records Management

Records should be well managed in order to ensure they are protected for both administrative purposes and to serve as evidence of the institution's work. The process of caring for records is known as records management. The records management function should therefore impact across the whole institution and not be confined to one central department. Due to its far reaching nature, integrating the records management function into institution's business systems, processes and culture often requires a significant amount of resources. Most higher education institutions will commonly expect to derive benefits from resources invested; benefits can be described as the expected returns or improvements gained by the institution from such an investment.

Kemoni and Wamukoya (2000) state that effective records management systems provide information required for the proper functioning of organizations, including universities. On the other hand, poor records management can be risky to organizations.

Records management is important for many other reasons. Records and information are the lifeblood of any institution. They are the basis on which decisions are made, services provided and policies developed and communicated. Effective management of records and other information brings the following additional benefits: supports an institution's business and discharge of its functions (Seniwoliba, Mahama, and Abilla., 2017).

Record Keeping and associated Problems

Giving credence to this, Afolabi (1999) asserts that record management practice in Nigeria has a number of problems which may include insufficient skilled and experienced record management personnel and possibly, low priority of record management in the scheme of things. Awe (2000) views the problems in record keeping from the perspective of these bodies-governments, university management, the staff and the students. Awe accuses these bodies of being responsible for inavailability/inaccurate/incomplete and dishonest records. And according to Utulu (2001), these adversely affect planning for and provision of structures and facilities, adequate funding, proper formulation and review of policies.

Other associated problems of recording, keeping identified generally in the educational system in Nigeria include: lack of record manual and filing guidelines which lead to loss of vital information (Egwunyenga 2009) and inadequate computer terminals (Oketunji 2002). Others are difficulty in record retrieval and lack of appreciation by management and staff of the need for well-controlled records (Egunleti 2001).

The result of the foregoing is high profile failures in accountability. The management of these problems would mean the development of efficient and effective options within and between universities, this indeed requires urgent attention. Ogundede (2001) believes there is serious training need for staff. Full introduction and sustenance of computer and internet services as well as records management integration (Baje 1998; Fadokun2004). Adequate manual classification,

security, storage facilities and funds are generally recommended for good record keeping (Tower2004).

Adverse Impacts of Employee's Fidelity on Records Security

According to Steffani (2006), academic institutions face a barrage of information and security incidents such:

1. Compromised private data and intellectual property,
2. Substantial financial losses,
3. Potential threats to critical infrastructure,
4. Public safety and national security.
5. Data theft,
6. Malicious software infections,
7. Hacks into their computer networks,
8. Infiltration of other entities via their networks.

Seniwoliba (Seniwoliba, Mahama, and Abilla., 2017) in Djorka and Conneen (1984) summarize the consequences of poor records management as follows:

'In an institution where paperwork is poorly managed, the flow of records through the life cycle is retarded, chaotic, or non-existent. Records and the information they contain are difficult to retrieve, and costly duplication of paperwork is a frequent occurrence. The net effect of poor management is a decrease in the efficiency of the institution and an inflation of its operating costs.'

Objectives of the Study

This research addresses the impact of employee's fidelity on records security as assessed by Principal Officers in Hassan Usman Katsina Polytechnic.

Specifically the paper.

1. Investigate employee's fidelity on records security as assessed by Principal Officers in Hassan Usman Katsina Polytechnic.
2. Identify problems associated with records security and information management in Hassan Usman Katsina Polytechnic.

Research questions

1. To what extent does employee's faithfulness impacts records security in Hassan Usman Katsina Polytechnic?
2. What problems are associated with records and information management on records security in Hassan Usman Katsina Polytechnic?

Research Methodology

The study adopted descriptive survey research design. According to Burns (2000), quantitative research uses descriptive statistics that enable the researcher to summarize quantities of data by using graphs and numbers such as values and percentages. Research methods in a quantitative study include experiments, surveys, content analysis and existing statistics (Neumann, 2000). The population of the study was made up of 66 Principal Officers of Hassan Usman Katsina Polytechnic classified as follows; 25 head of department, 25 examination officers, seven College

Directors and nine selected Principal Officers. All the population was used as sample so as to have greater reliability. The data was collected using structured four point Likert type questionnaire.

The researcher personally distributed and retrieved the filled questionnaire. Descriptive statistics of arithmetic mean was used to analyse the data. The decision rule was to consider any item with mean ratings of 2.50 and above as high extent and any mean ratings less than 2.50 as low extent.

Presentation and Analysis of Data

Research Question One: Does employee's fidelity impacts on records security in Hassan Usman Katsina Polytechnic?

Analysis of question one is presented in Table one

Table 1 - Employee's fidelity impacts records security

S/N	Item statement	Mean	Decision
1	Employee's fidelity greatly impacts on the security of records	2.61	High extent
2	Employee's fidelity impacts on the security of records	2.80	High extent
3	Employee's fidelity has nothing to do with the security of records	2.41	Low extent
4	Document are not safe in employee's care	2.51	High extent
Cluster Mean		2.59	High extent

Source: Field survey 2020

Data in Table 1 shows that three items, that is item 1, 2 and 4 have a mean rating ranging from 2.52 - 2.80 indicating that items employee's fidelity greatly affect the safety and security of records. Item 3 has a mean rating of 2.41, indicating low extent and does not apply. The cluster mean of 2.59 proves that employee's fidelity averagely impact on the safety and security of records of the institution, also indicating that all the item statements affected the safety and security of records in Hassan Usman Katsina Polytechnic.

Research Question Two: What problems are associated with records and information management in relation to records security in Hassan Usman Katsina Polytechnic?

Analysis of question two is presented in table two.

Table 2: The impacts of problems associated with records and information management on records security in Hassan Usman Katsina Polytechnic

S/N	Item statement	Mean	Decision
1	Compromised private data and intellectual property	2.72	High extent
2	Data theft	2.64	High extent
3	Potential threats to critical infrastructure	2.91	High extent
4	Malicious software infections	2.53	High extent
Cluster Mean		2.70	High extent

Source: Field survey 2020

Table 2 indicates that all the item statement have adverse effects and are problematic on the security of records. The items have a mean rating ranging from 2.53-2.91. The cluster mean of 2.70 reveals that all the item statement greatly affect the security and pose grave danger on records.

Discussion

The results of this study point to the fact that there are a number of problems associated with employee's fidelity impacting on the security of record in Hassan Usman polytechnic ranging from negative attitude of staff, badly implemented record management system, insecurity of records, use of paper convention, lack of training, manual operation, inadequate computer terminal and resources to ineffective retrieving, retention and disposition schedule, as well as lack of policy and filing procedure manual. These agree with the views of Omeyi (1977), Daya (1996), Iguodala (1998), Iwhiwhu (2005) and Egwunyenga (2009), who have in their various studies pointed out at different times that records kept by Nigerian polytechnic, colleges and universities, their acquisition policy, methods of preserving and disseminating them are faulty. This finding could explain why it is very difficult to gather information from many high institution archives especially students' records such as transcripts, sometimes examinations scores which may be declared missing and many other general administrative documents. Even when they are available, these problems may create doubt as to the authenticity and accuracy of such records. The ultimate consequence is embarrassment to such institution.

Conclusion

The findings of this study have led the researcher to conclude that there may exist acute record keeping problems in Hassan Usman Polytechnic Katsina, because there are clear evidences and these could be curbed effectively by the adoption of the right management options as have been made available by the findings of the study.

Recommendations

Records security and management function should be incorporated into the polytechnic-wide strategic planning initiatives. Most importantly, senior management should embrace the records security and management function to ensure its effectiveness and should be incorporated into their performance management targets. The recommendations of the study are as follows:

1. The position of the Records Manager is crucial as this employee is entrusted with the responsibility of overseeing the welfare of the polytechnic's records. Adequate training should be given to ensure that this employee is able to undertake the full responsibilities of the post
2. Induction programmes for fresh staff is highly recommended
3. The institution needs to appoint records managers whose responsibilities will be compilation, implementation, maintenance and utilization of approved filing systems and the records filed according to these systems.

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CYBERCRIMES IN NIGERIA: EFFECTS ON OFFICE RECORDS AND IMPLICATIONS FOR ECONOMIC GROWTH AND NATIONAL DEVELOPMENT

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Abstract

The paper deals with cybercrimes in Nigeria and its effect on office records and implications for economic growth and national development. Two objectives; to explore the extent to which cybercrime affects the safety of office records in Nigeria and to determine the degree to which cybercrime affects the security of office records in Nigeria. Based on the objectives, the paper is guide by two questions; to what extent has cybercrime affected the safety of office records in HUK and to what extent has cybercrime affected the security of office records in Hassan Usman Katsina Polytechnic. It is a research paper based on research question on cybercrime, causes and effect on the office records and its function. The population of the study was made up of 64 executives of Hassan Usman Katsina Polytechnic classified as follows; 25 Head of Department, 25 Examination Officers, Seven College Directors and Seven other Principal Officers. The study adopted descriptive survey research design. A four-point scale structured questionnaire was validated by panel of experts which included Senior Lecturers in the Department of Office Technology and Management was utilized and the decision rule was that a mean of 2.50 was interpreted and accepted. It establishes that found that cybercrime is enemical to the safety of office records and conclude that office records are not safe in the face of cybercrimes and this will militate against economic growth and national development. It is recommended that antivirus, encryption, passwords, firewalls and biometrics be used to hinder unauthorized access to office records, as the safety of records would enhance economic growth.

Keywords: Cybercrime, Office records, Computer Security, Corona Virus

Introduction

The emergence of the computer and its peripherals, as the major office tool, has greatly been emphasized in the world by the incidence of the corona virus pandemic. Due to the lockdown as a result of the pandemic, people were forced to work from their homes using computer systems. They also tried to keep abreast of happenings around the world to help them keep safe and be enlightened on the developments around the world. At no other time had the computer and the Internet enjoyed such pre-eminence as at this time. Other reasons for this pre-eminence include the fight against boredom which accompanies being isolated and sedentary at homes.

New risks emerge every hour of everyday in today's computerized world. Connecting to the internet opens up the possibility of a hacker targeting an organization or business setting. Cybercrime has now become a major threat to the survival of many businesses in the world as records are now vulnerable to hackers in spite the numerous measures put in place to guide against the nefarious activities of these criminal elements.

A cyber security survey (2018) reveals that over four in a ten (43%) businesses and two in ten (20%) charities in the U.K suffer from cyber-attack (Cyber security, 2018). The survey equally finds out that 30% of small businesses have spent nothing to protect themselves from cyber security threat (Cyber security, 2018)

In the world today, there are three different types of office namely; the traditional, transitional and electronic office (Nwosu, 2002).

The traditional offices by their method of operation may not be vulnerable to cybercrime hackers because records are kept manually. The transitional office is in-between the traditional and electronic office in terms of technological application and such could be vulnerable to cybercrime threat.

The electronic office, popularly known as paperless office, is the office where all its functions and services are fully computerized. Full information technology facilities are provided with every employee assigned a work station. In this type of office, more of soft rather than hard copies are used. Every worker in an electronic office is an end user because all the computers are networked and fitted with information technology facilities for easy retrieval and sending of information.

Today office manager require accurate and fresh information upon which direction to go, how far, with what resources, and with what cost and time constraints (Nwosu2002 in Odiava, 2015). Information is therefore not only basic and universal need of every manager but also an integral component part of everything he needs. Once records are tampered with or made inaccessible, it would be difficult for management to effectively run the organization without hiccup. It is therefore very necessary for every business or public organization to put adequate measures in place to guide against cybercrime.

Statement of the Problem

It is often said that an idle man is the devils workshop. In a time such as this, when people are away from income generating endeavors and are in dare need of making ends meet, it is envisaged that crime rates will increase and cybercrimes goes with it. Even before this pandemic, Thisday (2016) ranks Nigeria as the 3rd in the world with the occurrence of cybercrime coming behind United States of America and the United Kingdom.

The occurrence of cybercrime is classified as terrorism by Randa Security (2018) when government is the object of the crime. This has been the case where headed paper of the Secretary to the Federal Government has been used to publish false information on purposed appointment of that Babagana-Kingibe as the Chief of Staff to the President, a lot of false publications on the resumption of schools have been on the net, and even the draft copies of the broadcast of the President had been on the net even before the broadcast. It is in the light of these that the paper looks at the effects of cybercrime on office records.

Review of Literature

Concept of Cybercrime

Cybercrime is describe by Moore (2005) as a crime that involves a computer and a network. It is a computer-oriented crime. Kruse and Heiser (2002) state that the computer may have been used in the commission of the crime or may be the target of the crime.

Britannica (2020) defines cybercrime as the use of a computer as an instrument to further illegal ends such as committing fraud, stealing, identifies or violating privacy.

Finally, Halder and Jaishankar (2011) define it as offences that are committed against individuals or groups of individuals with a criminal motive to intensively harm the reputation of the victim or cause physical or mental harm, or cost, to the victim directly or indirectly, using modern telecommunication networks such as Internet (networks including chat rooms, emails, notice

boards and groups) and mobile phones (Bluetooth/SMS/MMS). To this, Morgan (2016) adds that it may also be directed to a nation against its security and financial health.

Causes of Cybercrime in Nigeria

The following are identified by Hassan and Makinde (2012) as being the causes of cybercrime in Nigeria

1. Unemployment Rata: A lot of school graduates are unemployed and they resort to cybercrime due to peer pressure.
2. Quest for wealth: The youth aspire to acquire wealth at all costs in the shortest possible time. Abutu (2016) refers to them promising wealth beyond measure and investment on untapped riches to those they can exploit.
3. Incompetent security on personal computers. To these Umana (2019) adds:
4. Urbanization: Urbanization has eroded social values and people hide under being in areas where they cannot be easily identified to do things they would ordinarily not do.
5. Negative role models: Society has given recognition to people who have amassed wealth by questionable ways by giving them titles and places of honour. The youth therefore want to copy them. This has affected the value system greatly.
6. Weak implementation of cybercrime laws have also encouraged cybercrime known generally as 419, Yahoo-Yahoo, Yahoo-Plus and hacking.

Types of Cybercrime in Nigeria

Omodunbi, Odiase, Olaniyan, and Esan (2016) list various types of cybercrime that exist in Nigeria.

1. Bank verification number scams
2. Phishing (identify theft)
3. Theft of ATMS card and numbers.
4. Bank fraud
5. Software piracy
6. Sales fraud and forgeries
7. Cyber-plagiarism
8. Cyber-pornography
9. Nigeria prince (beneficiary of will) scam
- 10 Charity funds
- 11 Cyber-stalking (harassment and blackmailing)
- 12 Social hijacking
- 13 Malicious codes
- 14 Computing virus and
- 15 Malware (logic bombs, worms, and Trojan horses)
- 16 Denial of service (DOS)

These also agree with those listed by Randa security (2018). Maitanmi (2013) also reported that the first reported case of cybercrimes occurred in 1960's when the internet was not around so employees of the organization were responsible

The Effects of Cybercrime in Nigeria

The effects of cybercrime in Nigeria have been explored by Umana (2019). They are the following:

1. Loss of revenue and reduced competitive edge.
2. Waste of time and resources and slowing down financial growth.

3. Slow down production because of damage in the computer.
4. Defamation of image. The incidence of cybercrime has really given the country and her citizens a bad image globally.

Ensuring Computer Security

Some remedies are considered by Ekwue (2009) and these include:

1. Antivirus software, which are useful but not full proof
2. Backups
3. Encryption
4. Passwords
5. Firewalls
6. Biometrics (facial recognition, fingerprint, hand geometry eye structure, signature, voice patterns and deoxyribonucleic acid simply known as DNA)

He however, warns that none of these methods is perfect because hackers continue to look for new ways of having unauthorized access and damaging system and their contents.

The Office and Functions

The office is a place where clerical operations are carried out or where procedures concerned with the receipts, transmission, production, processing storage and retrieval of information are carried out (Sani 2012). The functions as listed by her.

1. Receiving information,
2. Recording information,
3. Storing information,
4. Arranging information,
5. Giving information and,
6. Safeguarding assets,

The computer has been currently utilized in carrying out these function and hackers in a bid to have unauthorized access or in a bid to destroy the information or the computer itself have resorted to cybercrime.

The Concepts of Security and Safety

There is always a problem identifying the difference between security and safety. Hornsby (2020) defines security as the activities involved in protecting against attack, danger, and so on. Definitions.net (2020) observes that it is the degree of resistance to, or protection from, harm. Google (2020) defines it as the state of being free from danger and threat. Hornby (2020) also sees safety as state of being free and protected from danger and harm. Google (2020) sees safety as the condition of being protected from danger, risk or injury. Search Security (2020) has it that security in information technology (IT) is the defense of digital information and information technology assets against internal and external, malicious and accidental threats.

From the above, there can only be a thin line between safety and security. Safety is used more with reference to denial of access by unauthorized persons or danger while security is more concerned with protection from harm, damage or injury.

Objectives of the Study

This study addresses the effect of cybercrime on office records and the implications for economic growth and national development specifically the paper will.

1. Explore the extent to which cybercrime affects the safety of office records in Nigeria.
2. Determine the degree to which cybercrime affects the security of office records in Nigeria.

Research Questions

Based on the objectives, the paper was guide by two questions:

1. To what extent has cybercrime affected the safety of office records in Hassan Usman Katsina Polytechnic?
2. To what extent has cybercrime affected the security of office records in Hassan Usman Katsina Polytechnic?

Research Methodology

The study adopted descriptive survey research design. Ekwue and Ukaikie (2014) stated that surveys are concerned with the state of affairs of a given situation or population with similar characteristics using appropriate sample. The population of the study was made up of 64 executives of Hassan Usman Katsina Polytechnic classified as follows; 25 Head of Department, 25 Examination Officers, Seven College Directors and Seven selected Principal Officers. All the population was used as sample so as to have greater reliability. The data was collected using structured four point Likert type questionnaire which was validated by panel of experts.

The researcher personally distributed and retrieved the filled questionnaire. Descriptive statistics of arithmetic mean were used to analyse the data.

The decision rule was to consider any item with mean ratings of 2.50 and above as high extent and any mean ratings less than 2.50 as low extent.

Presentation and Analysis of Data

Research Question One: To what extent has cybercrime affected the safety of office records in Hassan Usman Katsina Polytechnic?

Analysis of Question One is presented in Table one

Table 1 - Effect of cybercrime on safety of office records

S/N	Item statement	Mean	Decision
1	Unauthorized access	2.61	High extent
2	Denial based on Dos	2.80	High extent
3	Loss of reliability	2.41	Low extent
4	Document not safe	2.51	High extent
	Cluster mean	2.59	High extent

Source: Field survey 2020

Data in table 1 shows that three items, that is item 1,2 and 4 have a mean rating ranging from 2.52 - 2.80 indicating that items greatly affect the safety of records. Item 3 has a mean rating of 2.41, indicating that the item has never affected the safety of office records. The cluster mean of 2.59 indicates that all the item statements affected the safety of records in Hassan Usman Katsina Polytechnic.

Research Question Two: To what extent has cybercrime affected the security of office records in Hassan Usman Katsina Polytechnic?

Analysis of Question Two is presented in table two.

Table 2: Effect of cybercrime on security of office records

S/N	Item statement	Mean	Decision
1	Destruction of systems	2.72	High extent
2	Destruction of contents	2.64	High extent
3	Destruction of flash drive	2.91	High extent
4	Incidence and malware	2.53	High extent
	Cluster mean	2.70	High extent

Source: Field survey 2020

Table 2 indicates that all the item statement affect cybercrime security on office records. The items have a mean ratings ranging from 2.53-2.91. The cluster mean of 2.70 reveals that all the item statement greatly affects the contribution to cybercrime of office records.

Discussion of Findings

Every organization today, no matter the size, needs a manager that will require accurate and current information upon which decisions are taken on the best ways to achieve the set organizational goals. Cybercrimes militate against the safety of office records by preventing their retrieval when needed and grants easy access to those who are not authorized to have access to them as attested by Ekwue (2009).

It is also discovered that the nefarious activities of these unscrupulous hackers in most cases end up destroying both the record and the facilities used in keeping them. The resultant effect is the loss of revenue and reduction in competitive edge e.t.c. This is certified in Umana (2019).

Conclusion

From the findings above it will be concluded that office records are not safe in the face of cybercrime and this has a negative effect on economic growth and national development; it also negates economic growth and national development.

Recommendations

It is therefore recommended that:

1. Antivirus software, encryption, passwords, firewalls and biometrics be used to hinder unapproved access to office records
2. Backups be kept on flash drive, external disc drives and on Google drive or using cloud computing to ensure recovery in cases of damage to records and system

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WILLINGNESS TO ESTABLISH PRIVATE FOREST PLANTATION AMONG DWELLERS IN SOME SELECTED WARD (VILLAGES) IN KANKARA LOCAL GOVERNMENT AREA OF KATSINA STATE, NIGERIA

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Abstract:

This study was carried out to investigate the willingness to establish private forest plantation among dwellers in Kankara A & B, Mabai/Gatakawa, Wawar Kaza, and Ketare wards (village areas) selected from two district head areas of Kankara local Government area of Katsina state. Eighty copies of questionnaire were administered randomly to selected respondents from eight selected communities in the study area, while seventy-seven copies of questionnaire were retrieved. Multi-stage sampling techniques was used to select the respondents from the study area in eight communities; two from each four selected wards from the two district area of Kankara L. G. A. The willingness of the respondents to private forest plantation establishment shows that 44.1 percent of the respondents agreed on establishment of private forest plantation. Many of the dwellers faced some problems which influenced their willingness in establishing private forest plantations such as poor extension service, land tenure system, small land holding, non-availability of seed/seedlings, lack of technical know-how, government policies, trees casting shadows on crops, etc. more dwellers can be encouraged in willingness to participate in private forest plantation through extension service to farmers, government institution involvement at various levels of activities that will encourage individual and organization to establish private forest plantation. It is recommend that there is need for state forestry services to initiate and sustain program that will enlighten and encourage the individuals to participate in private forest plantation establishment so as to achieve the desired all the benefit provided by tree plantation (productive, protective and the regulative) as this will boost the economy of the area, the state and our nation in general. Government policies on land tenure system should be reviewed to encourage individual or private organizations to invest and actively participate more in forest plantation establishment.

Keywords: Willingness, Private Forests, Plantation Establishment

Introduction

The apparent increase in timber plantations might have been a result of the political restructuring of the Nigerian state from the former 4 regional arrangement to the creation of 12 states in 1968 as federating units. By 1993, the number of states had increased to 36. This led to an increase in forestry activities in the different States' forestry departments and the federal department of forestry which also funded plantation developments throughout the country in addition to research and policy issues. The forest plays an important role in protecting the soil, ameliorating the environment and protecting biodiversity and conserve soil and water. Forests are the main carbon reservoirs as well as the most efficient ecosystem to capture Co from the atmosphere. Adedokun *et al.*, (2011), reports that one of the most important resources of the earth is the forest and it is believed that man cannot survive without trees, especially those that are fruit producing. Ogunwusi (2011) reports that the role of forest in industrial development and in carbon sequestration is becoming very topical, and emphasis should be placed on increasing the area under forest cover through plantation establishment. Therefore the continuing dependency of the poor living in the rural and urban setting in the developing countries on fuel wood for cooking and heating has seriously degenerated to environmental degradation (Arowosage & Oyerinde, 2011). Therefore, the people who have of population and the higher expectation of the people which has generated throughout the state has led to an increase in the use of forest to such an extent that forest in the state has become degraded if it has not been razed to the ground, while the community involvement

in forestry activities has also been ignored by planners and policy makers not only in Nigeria but also all over Africa (Adedayo & Oyun, 2011).

Forest has always been important to the people and the Nation in general. It has always been a major economic resource of great importance to the people and the Nation in general. Wood provides one of the major building materials and the major source of fuel in rural areas and in cities too. Trees are the raw material for charcoal an alternative or refined source of fuel.

The use of forests and woodlands is manifold. The greatest single use is still the provision of wood fuel for domestic cooking and heating in rural areas and among urban poor. Other uses at the local level include: Pole-size wood for housing, fencing, and furniture; sawn timber for constructions and joinery; weaving fibers for baskets, nets and furnishing; special woods for drugs, incense and carving. Others include watershed protection to control runoff, storage and soil nutrient maintenance; atmospheric regulation as in the case of absorption of solar heat in evapotranspiration and sequestration of CO₂. In erosion control they serve as shelter belts, dune fixation rehabilitation of eroded terrain and in Land Bank for soil nutrient and structure maintenance. Forests are also useful in industries and for export: pulpwood for newsprint, papers and boards, containers, textiles; Veneer logs for ply wood and furniture, sawn timber for lumber, furniture, joinery and construction, poles for transmission poles and residues for particles and boards.

Other forest products besides wood include wax and oils and many drugs. Quite a number of major pharmaceuticals have their precursor material in the forest plants in Nigeria. If these plants are characteristic of mature forest then extended felling programs will rob them of their habitat at least until succession has built up the ecosystem again. Adedokun *et al.*, (2011), reports that one of the most important resources of the earth is the forest and it is believed that man cannot survive without trees, especially those that are fruit producing. Ogunwusi (2011) reports that the role of forests in industrial development and in carbon sequestration is becoming very topical, and emphasis should be placed on increasing the area under forest cover through plantation establishment. Therefore, the continuing dependency of the poor living in the rural and urban settings in the developing countries on fuel wood for cooking and heating has seriously degenerated to environmental degradation (Arowosoge & Oyerinde, 2011).

Therefore, the rapid growth of populations and the higher expectations of the people which have been generated throughout the State have led to an increase in the use of forests to such an extent that forests in the State have become degraded if they have not been razed to the ground, while the community involvement in forestry activities has also been ignored by planners and policy makers not only in Nigeria but also all over Africa (Adedayo & Oyun, 2010). But, local people have an important role to play in agriculture; their involvement in forestry activities very amount cultures. They have names for many different kinds of plants, ways to diagnose and treat human and animal diseases and methods to cultivating fertile and infertile soils. The forest provides household food and shelter for the people (Omorodion & Ebana, 1994). Precisely, forest plantations around the world provide important source of livelihood for many of the rural poor, although people necessarily make use of the forest. In a matter of fact, forest dwellers do represent the group with the highest level of forest dependency (Arnold, 2001). Forest dwellers are most often indigenous population groups that live in and with the forest according to their own traditions, making the forest also an important part of their social and cultural systems (Arnold & Bird, 1999).

It has been demonstrated that the private sector in forest plantation establishment is probably less than 1.0 per cent of the total forest plantation in the country, although FORMECU (1999) identifies a growing interest by the private sector in establishing forest plantations. This study therefore focuses on the assessment of the willingness to establish private forest plantation among dwellers in Kankara local government area of Katsina state.

Materials and Methods

The study was carried out in Kankara local government area of Katsina state Nigeria. Kankara was separated from Malumfashi in the year 1987 during the military administration of General Ibrahim Badamasi Babangida. The people of this area are Hausa/Fulani and other Nigerian ethnic group settled in the area for some economic reasons. So, Kankara local government area is located in the southern part of Katsina and it has a very good soil for agricultural production that is why e 80-85 per cent of the resident are farmers. They produce maize, cotton and Soya beans. Kankara local government shares common boundaries with other local governments such as Faskari by the west Malumfashi by the south, Dan-musa by the north then Musawa by the East.

It covers an area of approximately 1,462 km². It also has two district heads namely Sarkin Fauwan Katsina District Head, Kankara and Kanwan Katsina District Head of Ketare. The local government is made up of eleven (11) Village Heads (ward) with many villages and other settlements. Kankara is located between longitude 11°55'52" N and latitude 7°24; 40"E.

The population of this study comprised of the people in four village heads area (ward) selected from two District Area of Kankara Local Government, Katsina state. Target population of this study comprises the household of some selected communities in four village heads areas (ward) multistage sampling was used to select the respondents in the study area. Two village head area (ward) was randomly selected from each of the two district head areas in the study area. Two communities were selected in each village head area using random sampling techniques to make a total of eight communities in each of the eight sampled community. Ten household heads were systematically selected in each community to make a total number of eighty respondents and semi-structured questionnaire was administered to them. The selected village areas from the two district heads of Kankara Local Government Area and the sampled communities are presented in the table I below.

District area	Village area (ward)	Communities
1. Kankara District	1. Kankara A and B	1. Sabongari
2. Ketare District	2. Mabai/Gatakawa	2. Akwallare
	1. Wawar Kaza	3. Dan Nakwabo
	2. Ketare	4. Madubai
		5. Gundawa
		6. Algaitu
		7. Gurbi
		8. Hurya

Results

Table 1: Socio-economic Characteristics of the study respondents in the study area.

Variable	Frequency	Percentage	Total Sex
Male	5	75.4	
Female	19	24.6	100.00
Age (Years)			
20-30	52	67.5	
30-35	14	18.2	
35-above	11	14.3	100.00
Marital Status			
Single	50	64.9	
Married	27	35.1	100.00
Level of Education			
Primary Education	6	7.8	
Secondary Education	23	29.8	
Tertiary Education	48	62.4	100.00

Table 1 shows there were more males 75.4 percent to establishing of private forest plantation than females 24.6 percent in the study area. The age distribution shows that, the age of most respondents was within the range 20-30 years which had the higher percentage of 67 percent. The marital status of the respondents show that single was 64.9 per cent has higher percentage than married 35.1 per cent of the respondents. The educational background of the respondents reveal that majority 62.4 percent are at tertiary institution, followed by secondary and primary educations were 29.8 percent and 7.8 percent respectively.

Table 2: Knowledge of the respondent to private forest plantation

S/N	knowledge on forest plantation establishment	Yes F(%)	No F(%)	Total
1.	Have you heard about PFP?	29(37.6)	48(62.4)	100.00
2.	Are you practicing agroforestry?	26(33.7)	51(66.3)	100.00
3.	Do you know that individual or private Organization can establish forest plantation?	29(37.6)	48(62.4)	100.00
4.	Do you have any relationship with forest staff?	32(41.5)	45(58.5)	100.00
5.	Difficult coping with tree tending?	33(42.8)	44(57.2)	100.00
6.	Have you heard about policy guiding Forestry activities?	35(45.5)	42(54.5)	100.00
7.	Do you know how to plant trees?	49(63.6)	28(36.4)	100.00
8.	Do you have knowledge on management Activities?	38(49.4)	39(50.6)	100.00
9.	Tress/forest plantation establishment takes years to mature?	49(63.6)	Several 28(36.4)	100.00
10.	Indigenous species are better than exotic Species in PFP establishment?	38(49.4)	39(50.6)	100.00

Table 2: Shows that 62.4 percent of the respondents have not heard about private forest plantation establishment. This result implies that majority of the respondent were ignorant about private forest plantation establishment which may contribute to low involvement in private forest plantation establishment in the study area. Also 66.3 per cent of the respondent were not practicing agro-forestry, while 33.7 percent were practicing it. Most of the 62.4 percent respondents did not know that individuals or private organization can establish forest plantations but 37.6 per cent of the respondents know that individual or private organization can establish forest plantation. Most of the 58.5 per cent respondents did not have only relationship with forest staff while 41.5 per cent of the respondents have relationship with forest staff. From the Table it shows that 42.8 per cent of the respondents had difficulty coping with tree tending. This result implies that majority of the

respondents 57.2 percent were not having difficulty in coping with tree care and monitoring. Table 2 also show that 45.5 per cent of the respondents had heard about the policy guiding forestry activities, this result implies that majority of the respondents have no knowledge about the policy guiding forestry activities. Most of the respondent 63.6 per cent know how to plant a trees while 36.4% of the respondents did not know how to plant tree. Most of the 50.6 per cent of the respondent doesn't have knowledge on management activities involved in forest plantation establishment. Furthermore, 63.6 per cent of the respondents knew that trees or forest plantation establishment took several years to mature and also 50.6 per cent of the respondent agreed that exotic species in private forest plantation establishment are better than indigenous species.

Table 3: Perceived constraint of respondent to private forest plantation establishment in area of the study.

S/N	Constraint plantation establish	Major F(%)	Minor F(%)	Not Constraint F(%)	Total
1.	Fire out-break	39(50.6)	17(22.1)	21(27.3)	100.00
2.	Poor extension service	32(41.6)	25(32.5)	20(25.9)	100.00
3.	Land tenure system	31(40.3)	30(38.9)	16(20.8)	100.00
4.	Small land holding	33(42.8)	24(31.3)	20(25.9)	100.00
5.	Non-availability of seed/seedlings	31(40.2)	23(29.9)	23(29.9)	100.00
6.	Lack of technical know-how	22(28.6)	31(40.2)	24(31.2)	100.00
7.	Long term investment	29(37.7)	28(36.4)	20(25.9)	100.00
8.	Lack of finance	33(42.8)	26(33.8)	18(23.4)	100.00
9.	Government policies	33(42.8)	30(38.9)	14(18.3)	100.00
10.	Shortage of labour supply	26(33.8)	31(40.3)	20(25.9)	100.00
11.	Poor transportation during Rainy Season	36(46.7)	28(36.4)	13(16.9)	100.00
12.	Trees casting shadow on	21(27.3)	36(46.8)	20(25.9)	100.00

Table 3 revealed that 50.6 per cent of the respondents identified fire outbreak as major constraint, while only 27.3 per cent of the respondents identified fire outbreak as not a constraint. Inadequate forest extension worker was also identified as a major constraint with 41.6 percent of the respondents affirmed that forest extension workers were inefficient to sensitize them on the need to establish forest plantation, followed by minor constraint with 32.5 per cent and not a constraint with 25.9 percent. Another major constraint identified by the respondents were land tenure system which accounted for 40.3 per cent, followed by minor constraint with 38.9 percent. It was observed that the Land Use Act of 1978 vested the ownership of land government. The table further reveals that 42.8 per cent of the respondents identified government policies on forestry as a major constraint. The Table shows that most of the respondents identified lack of technical know-how as mind constraint with highest of 40.2 percent then followed by not a constraint with 31.2 per cent. Above average 37.7 per cent of the respondent also identified private forest establishment as long term investment which involves capital tie down investment. Most finance houses in Nigeria believe in short term, highly predictable and profitable investments.

Table 4: Willingness of the respondent to private forest plantation (PFP) establishment in study area.

S/N	Willingness to forest plantation est.	Agree F(%)	Undecided F(%)	Disagree F(%)	Total
1.	I will like to establish PFP?	34(44.1)	28(36.4)	15(19.5)	100.00
2.	Economy diversification will make me to Invest in establishment of PFP	29(37.7)	33(42.8)	15(19.5)	100.00
3.	I will establish PFP if there is availability of land	34(44.1)	29(37.7)	14(18.2)	100.00
4.	Climate change can make me to establish PFP to mitigate its effect	29(37.7)	31(40.2)	17(22.1)	100.00
5.	If I have access to loan, I will establish PFP	27(35.0)	26(33.8)	24(31.2)	100.00
6.	I will establish PFP as a means of income generation	27(35.0)	25(32.5)	25(32.5)	100.00
7.	Arable crops can be interplant with trees known as agroforestry practice.	27(35.0)	26(33.8)	24(31.2)	100.00
8.	I will involve in and establish PFP to encouraged Urban forest development	30(38.9)	35(45.5)	12(15.6)	100.00
9.	I will establish PFP for the community benefit	36(46.7)	28(36.4)	13(16.9)	100.00
10.	If land acts are reformed, I will engage in PFP establishment	28(36.4)	29(37.7)	20(25.9)	100.00
11.	Establishment of PFP will improve the sustainability of the forest sector	33(42.8)	27(35.1)	17(22.1)	100.00
12.	Government involvement at various level of activities will encourage individual and organization to establish PFP	41(53.2)	22(28.6)	14(18.2)	100.00
13.	Awareness creation by stakeholders will enable individual to participate in the establishment of PFP	35(45.4)	24(31.2)	18(23.4)	100.00

Table 4 indicates the willingness of the respondents to support private forest plantation establishment. The table reveals that most of the respondents, 45 per cent agreed on willingness to private forest plantation establishment, some were undecided 35 per cent while 20 per cent disagreed on willingness to private forest plantation establishment. This may be due to the perceived benefits they stand to gain if they establish the plantation.

Discussion of findings

The result shows that, there were more males having the interest of establishing of private forest plantation than females in the study area. The age distribution shows that the age of most respondent was within the range 20-30 years which has the highest percentage, this is in line with the findings of Adejoba&Oyewale,(2012). The marital status of the respondents shows that single has the highest percentage marital people.The result also reveals that majority of the respondents have not heard about private forest plantation establishment. And knowledge of agroforestry practice is low, this is contrary to the findings of Akinble, Salimonu, & Yekimi, (2007) that agroforestry has a way of instituting sustainable agricultural development in Nigeria. This is because agroforestry has the ability to convert the various environmental problems by assisting farmers to maintain the fertility of their soils, ensure diversification of crops, wood and timber species and to stabilize improve and conserve the environmental and also the result reveals that most of the respondents did not know that individual or private organization can establish forest plantation. The result is in agreement with the finding of Adejoba & Oyewale,(2012) who points out that extensions sometime is successful in creating awareness and promoting trees, but the extension effort often fail with no provision for follow-up visits. The result reveals that most of

the respondents identified fire out break as a major constrain and most of the respondent identified lack of technical know-how as minor constraint. This goes the same way as the findings of Banjo & Abu,(2014) . This may be due to the perceived benefit they stand to gain if they establish the plantation. This result is in agreement with the findings of Udofia *et al.*, (2011), that vast areas of forest are being converted in to plantation of exotic tree species, due to the fact that they grow faster than the indigenous species.

Conclusion

The establishment of forest plantation is a key to sustainable harvest of wood product in order to support human society. Incessant deforestation has been a major problem which is resulting to uncertainty of weather condition which is gradually transforming to climate change and variability. Thus, respondent's knowledge on forest plantation enabled them to show willingness in participating in tree plantation. This is as a result of the perceived benefit associated with forest plantations.

Recommendation

There is need for the Federal Department of Forestry under Federal Ministry of Environment and all stakeholders at federal, state and local government levels to initiate and sustain programs that will enlighten and encourage the community participation of forest plantation establishment in general and private forest plantation in particular. By doing so, most communities that do participate will be protected by that plantation against erosion, hazards winds etc. Moreover the community will also be producing many forest products being it woody or non-woody depending on what types of plantation is in that community and also the regulation benefit of trees will also be achieved.

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THERMAL PERFORMANCE OF A PASSIVE FLAT PLATE SOLAR COLLECTOR AT BAYERO UNIVERSITY, KANO (OLD CAMPUS), NIGERIA.

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Abstract

Solar energy is an ultimate source of renewable energy and it bridge the gap between demand and supply of electricity and it also saves money since its running cost is zero. Solar Flat plate collector is widely used for domestic hot water, space heating and for applications requiring fluid temperature less than 80°C. In this research work, an experimental investigation on the thermal performance of a constructed passive solar flat plate liquid solar collector covered by a single glazing material in Bayero University, Kano, Nigeria (latitude 11°58' N, longitude 8°28'E) was carried out. The studied evaluated the performance of the solar flat plate solar collector in the study area prevailing weather conditions and assess its viability for domestic applications. In order to evaluate the thermal performances of the solar thermal collector, experimental data (solar intensity, ambient temperature, inlet and outlet liquid temperatures) were collected during the period of 1st February to 30th March, 2018. Readings were recorded every day from 11:30 AM to 04:00 PM in an interval of 30 minutes. The collector was placed at an angle of 11° equal to that of the latitude of the study area to the horizontal. The results of the thermal performance analysis shows that a maximum efficiency of 63% and outlet water temperature of 67°C were obtained between 1:30pm to 2:00pm from the month of February to March, 2018. The average first order efficiency equation coefficient was also calculated to be 28.59 W/m²K. Thus, the use of a flat plate solar thermal collector for domestic heating purposes in Bayero University, Kano, Nigeria was viable since reasonable temperatures (outlet from the collector) and lower first order efficiency equation coefficient were realized.

Keywords: Passive Flat-Plate Collector; Solar; Thermal Performance.

Introduction

Due to the population growth and industrial development in the world, the use of energy and fossil fuel has increased. The continuous use of fossil fuels produces environmental pollutants, such as CO₂ and SO₂, and these pollutants affect climate change and cause various environmental problems, such as accelerated global warming. Many countries signed the Paris Climate Change Accord on 12 December 2015 to reduce greenhouse gas emissions, reduce the annual average temperature increase of the earth, and to maintain a low temperature increase. Therefore, numerous studies on the development and application of various renewable energies have been performed. Solar energy is a renewable energy with unlimited energy, unlike fossil fuels, and has various advantages; for example, it is not concentrated in a specific area, and does not cause environmental pollution.

Solar water heating is one of the prime application areas of solar energy. According to (Kishor et al., 2010) water heating by solar energy for domestic use is one of the most successful and feasible applications of solar energy. A solar water heater employs a solar collector with good absorption capacity and with the ability of collecting energy from over a wider area and harnessing the energy collected to raise the water temperature significantly. A solar collector can be classified as a flat-plate solar collector, an evacuated-tube solar collector, or a parabolic solar collector. The flat-plate solar collector is a common solar collector for residential hot water and space heating, and it has advantages such as a low assembly cost, easy installation, and inexpensive management (Ahmadu et al., 2016 and Khaldi et al., 2017).

Solar water heating has been reported to enjoy much popularity in places like Australia, Israel, the United States of America, Germany, Sweden, India, Jordan, Cyprus, China, Greece and Japan (Garg, 2009). Nigeria, like many other tropical countries are blessed with abundant solar energy

which is beamed over the geographical entity and received freely on daily basis. There are two basic types of solar water heating systems on the market, one known as passive (no pumps, also called thermosiphon system) and the most popular known as active, which has pumps that circulate heated water through the system. The key advantages of solar water heaters based on thermosiphon principle have been summarized by Ogie *et al.*, (2013), Okoronkwo *et al.*, (2014), and Sarma *et al.*, (2014) as follow: easiest and cheapest to build and operate; easier to maintain and less vulnerable to mishaps; can withstand mild sub-zero temperature; more reliable and long-lasting since there are no moving parts; scalable - no fuel cost- and, it is portable. The survey of the literature has shown diverse results. But, the consensus is that the adoption of solar water heating systems technology, to meet the hot water needs of Nigeria, is feasible and viable. The aim of this research work is to characterize and analyze the thermal performance of a Passive solar flat plate thermal collector in domestic heating applications in Bayero University, Kano under Kano State, Nigeria prevailing weather conditions.

Theoretical Background

The mathematical model of a passive solar flat plate collector is shown in the diagram below.

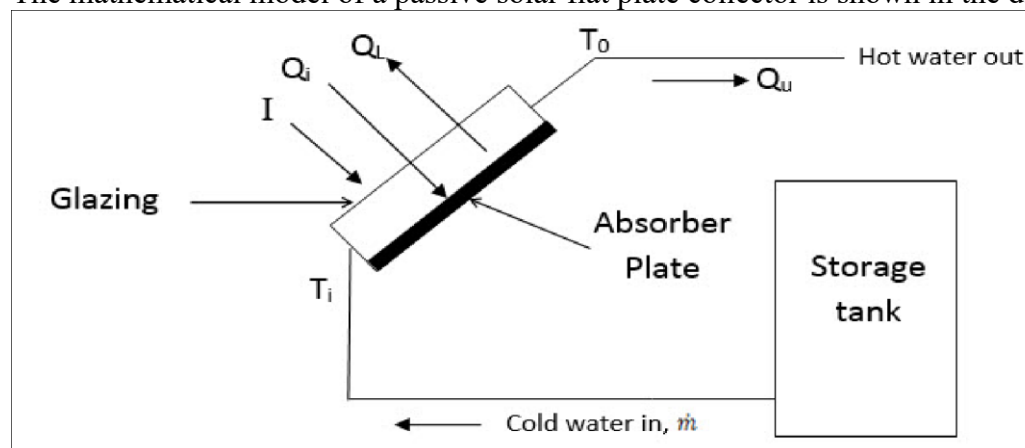


Figure 1.1: Heat flow through a passive solar flat plate collector. Where:

I = intensity of the solar radiation in Wm^{-2}

Q_i = amount of solar radiation received by the collector in Watts (W)

T_o = outlet water temperature

T_i = inlet water temperature

Q_l = rate of heat loss to the surroundings in Js^{-1}

Q_u = rate of heat extracted by the collector in Js^{-1} = collector useful energy

The amount of solar radiation received by the collector plate in Watts (W) is given by

Where:

A = collector's plate area in m^2

τ = transmission coefficient of glazing. Values are between 0 and 1

α = absorption coefficient of absorber. Values are between 0 and 1

As temperature increases in the absorber plate due to incident radiation, part of its heat loss to the surroundings in the form of convection and re-radiation the rate of heat loss (Q_o) depends upon the temperature of collector and overall heat transfer coefficient (U_L).

Where:

T_c = average collector temperature in $^{\circ}C$

T_a = ambient collector temperature in $^{\circ}C$

U_L = overall heat transfer coefficient in $Js^{-1}C^{-1} m^{-2}$ =

Thus, the rate of useful heat gained Q_U by the collector under steady state condition is less than heat loss to the surrounding by the collector.

This is expressed as follows,

It is also known that the rate of extraction of heat from the collector by the moving water is measured by means of the amount of heat carried away by the fluid passing through it, that is

Where:

= mass flow rate of the fluid in kg/s

c = specific heat capacity of the fluid

From equation (3), it is somewhat challenging to measure the average temperature of the plate. It is convenient to define a quantity that relates the actual useful energy gain of a collector to the useful heat gain if the whole collector surface were at the inlet fluid inlet temperature. This quantity is known as the collector heat removal factor denoted by F_R and is expressed as:

The maximum possible useful energy gain in a solar collector occurs when the whole collector is at the inlet fluid temperature. The actual useful energy gain, Q_U is found by multiplying the collector heat removal factor F_R by the maximum possible useful energy gain. This allows the rewriting of equation (2) as

The performance of solar flat plate thermal collector is the Instantaneous collector efficiency defined as the ratio of the useful energy gain Q_U to the incident solar energy over a particular time period (Twindell and Weir, 1986). i.e.

A linear correlation can be constructed by treating) and as characteristic constants of the solar collector from equation (7). The term is called the first order efficiency equation coefficient in W/m^2K . The smaller the value (), the higher the efficiency of the solar thermal collector. Both first (linear) and second order (quadratic) efficiency equation coefficients are listed in the *Directory of the Solar Rating and Certification Corporation (SRCC)* and the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) for the performance testing of solar thermal collectors (ASHRAE, 1986) and the SRCC.

Materials and Method

The materials selection and design used in the construction of the solar flat plate liquid collector are shown in table 1.0 below;

Table 1.0: Material selection and design of the collector

S/N	Property	Value
1.	Collector area	0.661m ²
2.	Width of absorber plate	0.95m
3.	Thermal conductivity of the absorber plate	386Wm ⁻¹ K ⁻¹
4.	Number of tubes	30
5.	Diameter of each tube	0.007m
6.	Distance between adjacent tubes	0.06m
7.	Density of tube plate material	8954kgm ⁻³
8.	Insulating material used	Wool
9.	Glazing material used	Single glass

Experimental setup for the above material selection and design was carried out by using a constructed solar flat plate collector system as shown in Figure 2. It consists of water container, flat plate collector and pyranometer. Provisions are made to measure inlet, outlet temperature of the working fluid, and the temperatures of the absorber plate. The constructed solar flat plate collector is tilted at an angle of 12° to the horizontal and facing due south.

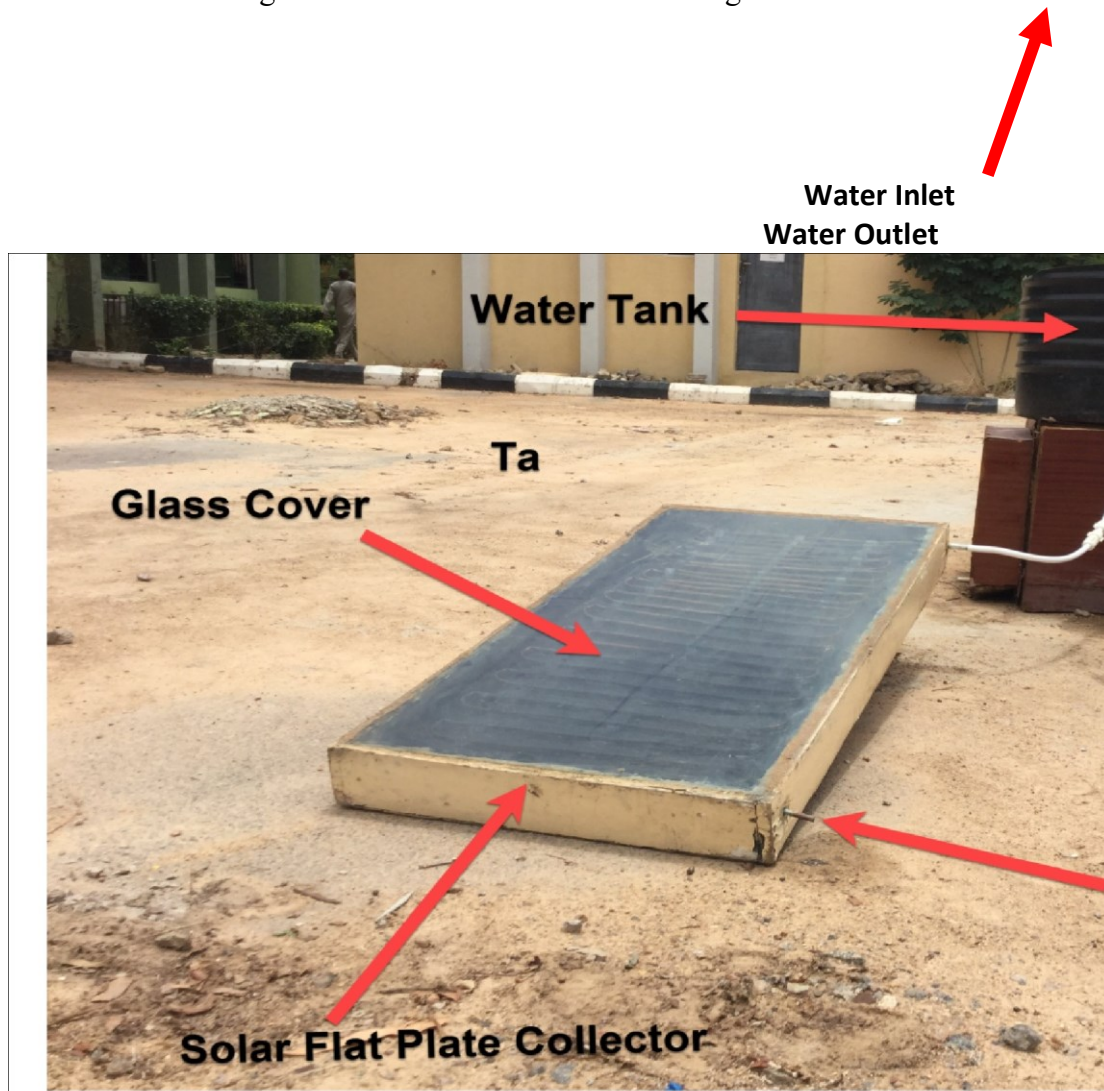


Figure 2.1: Experimental set-up of a passive solar flat plate collector.

Data were collected on clear sunny days in the month of February, 2018 to March, 2018 from 11:00AM to 4:00PM daily. To calculate the flow rate of the collector, A calibrated vessel (0-5 liters) measure the volume of water discharged (litres or centimeters) while a stop watch was used to measure the time (seconds) for volume of water discharged for five different trials and the average flow rate then obtained before the commencement of the measurement of readings.

The mass flow rate in kg/s can be obtained by using the formula:
Where is the density of water .

Results and Discussion

The complete solar flat plate was tested for a period of sixty (60) days. The experiment was carried out in the open place in Bayero University, Kano (old campus) where the setup was directly

exposed to sunshine free from shades of trees and buildings. Table 2.0 is a typical daily data. Table 3 and 4 give the average daily data for the months of February and March, 2018 respectively. The visual representations of these results are shown in figure 3 and figure 4. A constant was used and maintained throughout the whole experiment.

Table 2: Average Values of Measured Parameters of the collector for 1st February, 2018.

Time	T _a	T _{in}	T _{out}	Qu/Js ⁻¹	/Wm ⁻²	/W	
11:30AM	23	29	57	183.8088	743	491.123	0.374262
12:00PM	24	29	59	196.938	761	503.021	0.39151
12:30 PM	24	30	61	203.5026	758	501.038	0.406162
1:00 PM	25	30	63	216.6318	752	497.072	0.435816
1:30 PM	26	29	65	236.3256	781	516.241	0.457782
2:00 PM	26	29	67	249.4548	760	502.36	0.496566
2:30 PM	25	29	67	249.4548	723	477.903	0.521978
3:00 PM	25	29	62	216.6318	701	463.361	0.467523
3:30 PM	25	28	61	216.6318	720	475.92	0.455185
4:00 PM	24	28	59	203.5026	713	471.293	0.431796

Table 3: Average Daily Values of Measured Parameters of the collector for the Month of February, 2018.

Time	I						
11:30A	0.45885						362.282
M	0	23.7931	30.34483	784.3793	5	54.13793	0.008142
	0.51168						345.337
12:00PM	9	24.93103	31.68966	811.4828	7	60.7931	0.006743
	0.52976						340.035
12:30PM	9	25.89655	32.93103	835.3103	6	65.24138	0.006589
	0.56370						318.099
1:00 PM	6	27.31034	34.17241	860.000	7	72.31034	0.006110
	0.58164						305.936
1:30 PM	2	28.31034	35.27586	868.3103	3	76.10345	0.004653
	0.61110						300.360
2:00 PM	3	28.82759	35.34483	851.6552	1	75.34483	0.004123
	0.62934						299.768
2:30 PM	0	28.48276	34.72414	820.9655	0	71.72414	0.004906
	0.58067						325.893
3:00 PM	7	28.06897	34.27586	806.7241	8	65.86207	0.004908
	0.55817						334.238
3:30 PM	7	27.58621	33.41379	779.9655	4	61.03448	0.003470
	0.50964						345.888
4:00 PM	1	27.48276	33.24138	753.4138	9	56.41379	0.004918

Table 4: Average Daily Values of Measured Parameters of the collector for the Month of March, 2018.

I							
Time							
11:30A							
M	0.288293	26.25806	35.25806	895.9333	450.1200	56.90323	0.011190
12:00PM	0.304749	27.61290	37.41935	959.3000	472.7352	62.00000	0.011234
12:30PM	0.376495	29.70968	38.58065	982.3333	439.4669	70.54839	0.008669
1:00 PM	0.425814	30.87097	38.90323	968.1667	387.9623	77.29032	0.008643
1:30 PM	0.463864	31.48387	38.87097	956.6667	357.4905	80.74194	0.007723
2:00 PM	0.425544	32.19355	38.87097	930.4000	360.6691	77.61290	0.007078
2:30 PM	0.407611	32.32258	38.70968	912.3333	370.9619	74.06452	0.007604
3:00 PM	0.341779	32.38710	38.48387	892.4333	395.2898	68.12903	0.007386
3:30 PM	0.307810	31.19355	37.80645	829.7667	392.6194	61.54839	0.008796
<u>4:00 PM</u>	<u>0.301656</u>	<u>31.00000</u>	<u>37.32258</u>	<u>809.5667</u>	<u>392.6082</u>	<u>59.03226</u>	<u>0.009261</u>

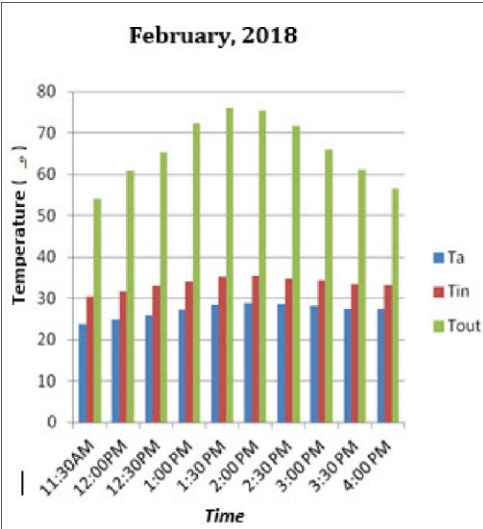


Figure 4: Ambient, inlet and outlet temperatures variation during a day.

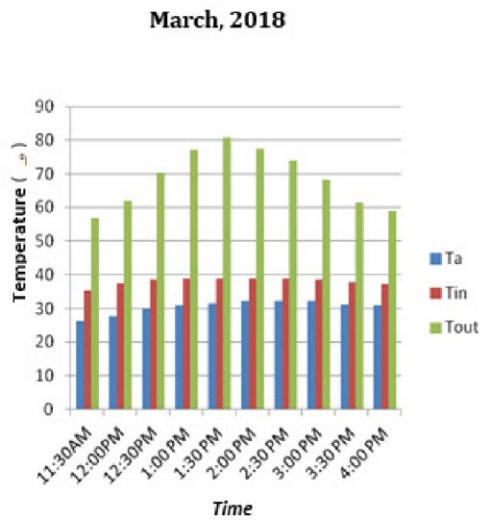


Figure 5: Ambient, inlet and outlet temperatures variation during a day.

Figure 5:

Figure 6:

February, 2018

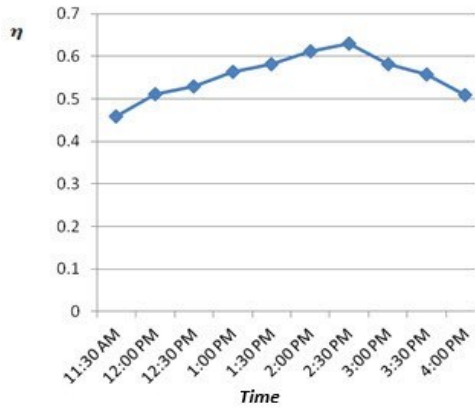


Figure 6: Variation of thermal efficiency during a day.

March, 2018

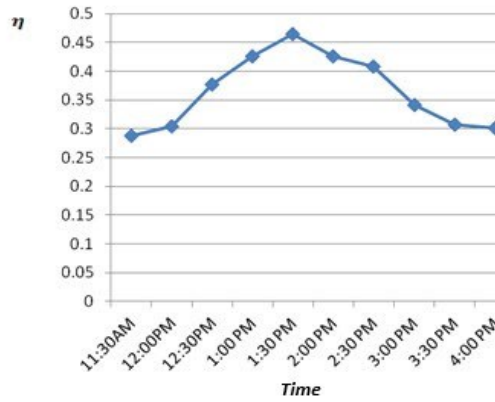


Figure 7: Variation of thermal efficiency during a day.

February, 2018

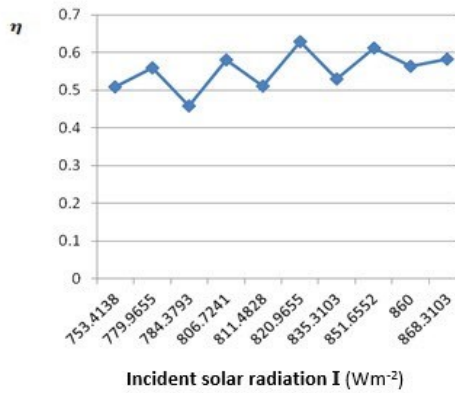


Figure 8: Variation of thermal efficiency with incident solar radiation.

March, 2018

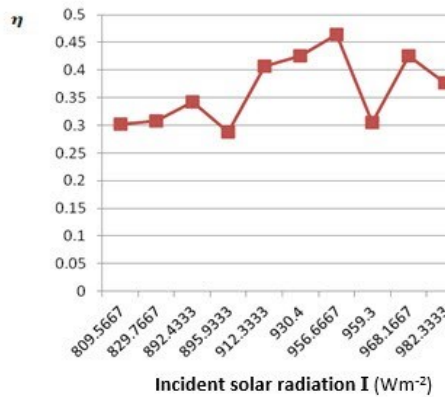


Figure 9: Variation of thermal efficiency with incident solar radiation.

Figure 7:

Figure 8:

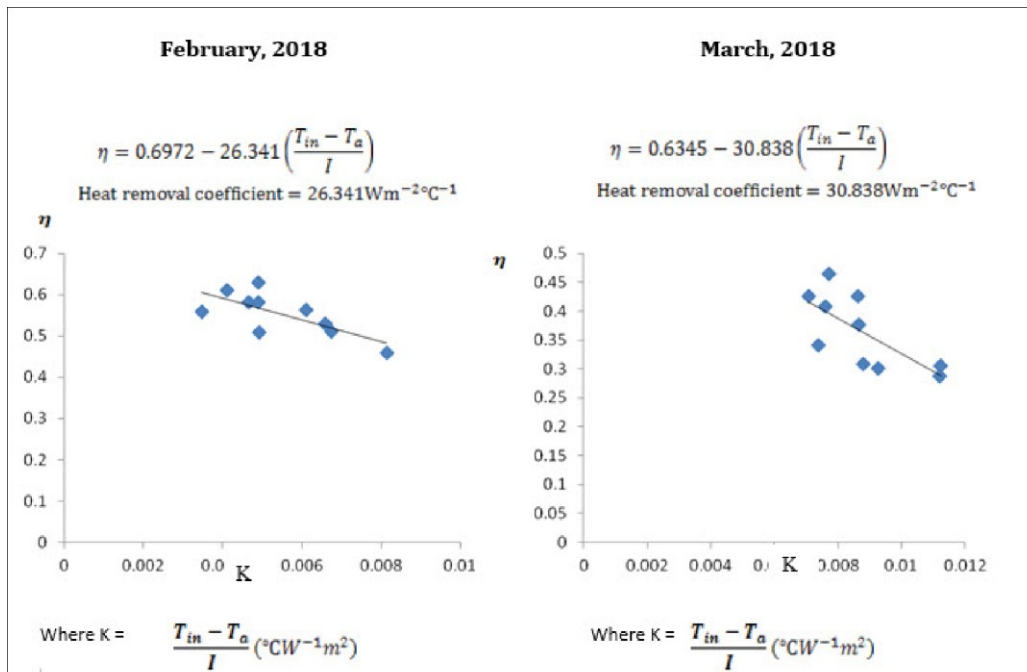


Figure 9 :Variation of thermal efficiency with k

Figure 10 : Variation of thermal efficiency with k

Figure 3 and figure 4 show the variation of ambient temperature and fluid inlet and outlet temperature during a day for the months of February and March, 2018. An average fluid outlet temperature of is obtained at around 1.30PM during the day. This maximum outlet fluid temperature corresponds to a high average thermal efficiency of 55.5% as shown in figure 6 and figure 7. Figure 3 and Figure 4 show the variation of thermal efficiency with the incident solar radiation on the solar collector, both the graphs follows a trend of direct proportionality. The variations of thermal efficiency of the collector with heat losses for the two months are shown in figure 3 and figure 4. Both the graphs show that, at higher heat loss from the collector, the efficiency is low and at lower heat loss from the collector, the efficiency of the flat plate collector is higher. From figure 9 and figure 10 above, the thermal efficiency decreases with increase in the difference between the inlet water temperature and ambient temperature. Maximum efficiencies of 69.7% and 63.5% are obtained in February and March, 2018 respectively when the inlet water temperature and the ambient temperature are equal. The average first order efficiency equation coefficient are calculated to be 28.59 W/m²K. This first order efficiency equation coefficient is comparatively low considering the small difference between the ambient temperature and the inlet fluid temperature.

Conclusion

A passive solar flat plate collector was constructed and tested in Bayero University, Kano under Kano State, Nigeria prevailing weather conditions. The results of the thermal performance analysis shows that the maximum efficiency of 63% and outlet water temperature of 67°C were obtained between 1:30pm to 2:00pm from the month of February to March, 2018. The average first order efficiency equation coefficient was calculated to be 28.59 W/m²K. Thus, the use of a flat plate solar thermal collector for domestic heating purposes in Bayero University, Kano, Nigeria is viable since reasonable temperatures (outlet from the collector) and lower first order efficiency equation coefficient were realized.

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IMPACT OF DEBT POLICY ON FINANCIAL PERFORMANCE OF INFORMATION AND COMMUNICATION TECHNOLOGY IN NIGERIA

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Abstract

The study examines the impact of debt policy on financial performance of information and communication technology firms listed on Nigerian Stock Exchange during the period of 2010 to 2019. Variables of long term, short term and total debts were utilize as explanatory variables while earning per share was adopted as dependent variable. The study employed ex-post factor research design on data from seven sample firms using purposeful and filtered method of sampling technique. Also, robustness tests were conducted to further confirm the fitness or the reliability of the variables employed and the validity of the data which warrants the use of random effect model. Similarly, STATA 11 version was used as a statistical tool to determine the extent of influence of the independent variables on dependent variables using multiple regressions. The study documents that long term debt statistically impact on earnings per share in a significant manner. Furthermore, the study discovers that short term and total debts negatively but significantly influence earning per share during the period under investigation. It was concluded that debt policy influences financial performance of the information and communication technology firms listed on Nigerian Stock Exchange. Therefore the study recommends that the management of the information and communication technology firms in Nigeria should focus more on long term debt as it yields the highest performance when compared with debt financing options.

Keywords: Long Term Debt, Short Term Debt, Total Debt; Earnings per Share, Information and Communication Technology

Introduction

Globally, contemporary corporate finance managers have been confronted by twin challenges of identifying the optimum financing alternatives and firms poor financial performance. They have also been struggling with the triple demands of business establishment which are wealth creation for shareholders/investors, maintaining business operations and contributing to the economic growth. The existing theories document that debt serve as the main sources of funding the long term investments of a company that mainly ascertain its performance. However, identifying an optimal debt option or policy continued to remain a mirage (Prempeh, Sekyere, & Asare, 2016 and Nwude, Itiri, Agbadua, & Udeh, 2016). It is worthy of note that debt, other than equity is the second essential form of capital structure. It entails the funding a company's assets and operations through financial securities or instruments issuance which may be long term debt, short term debt, loans payable, debentures, bonds, notes payable, etc (Chadha & Sharma, 2016). It should also be noted that debt comprises of long term, medium term and short term financing options. A firm decides to select which of the debt options among the alternatives available is likely to suit their present condition in order to maximize their performance over a giving time period.

A number of studies were conducted in Nigeria and of course many countries of the world to determine the influence of debt financing in private organizations with most of them focusing on various sectors; however, there is neglect of the information and technology sector despite the roles the sector has been playing recently in the economy. For instance, Abdul and Badmus (2017) conducted a study on chemical and paints companies, John-Akamelu, Iyidiobi and Ezejiofor (2017) carried out on food production companies. A perusal through the existing literatures suggests conflicting findings. While some studies indicate significant impact, others reported

insignificant influence of debt financing on financial performance. For instance, Ogiriki, Andabai and Bina (2018) report positive significant impact, document positive and significant influence between different explanatory variables used in the studies on debt financing on financial performance. Conversely, John-Akamelu, Iyidiobi and Ezejiofor (2017), Abdul and Badmus (2017), suggest insignificant influence among the various variables applied in their studies. Again, most of the existing studies on debt financing skewed toward determining the effect of debt financing on financial performance without specifically comparing within the financial performance of the individual debt financing option or policy in order to identify the optimum debt financing option for the firm. This further justified that despite the vast studies in the area, there is mix finding which further justifies the need to carry out another study on the area. These problems have necessitated this study to determine the influence of debt policy on financial performance of information and communication technology in Nigeria in order to assist in the identification of different debt policies adopted by firms and how they impact on financial performance. The hypothesis to be tested will be influence of debt policy measured by long term debts, short term and total debts on financial performance measures by earnings per share.

The remaining parts of the paper consist of section two which reviews the related empirical evidence and theoretical framework, section three gives the methodology of the study while the robustness, result and discussions of findings were given by section five and section six concludes and makes recommendations.

Literature Review

Kenn- Ndubuisi and Nweke (2019) explored the association connecting financial leverage and financial performance of firms in Nigeria. The population of the study was eighty (80) nonfinancial firms listed on the Nigerian Stock Exchange for a period of 2000-2015. The variables applied to measure financial leverage were debt to equity ratio, total debt to capital ratio, cost of debt, long term debt to capital ratios and debt to asset ratio. In order to test the stated hypotheses of the study, panel data technique which involves pooled regression model, marginal model, fixed effect model and random effect model were employed. The study discovered a significant and negative relationship between earnings per share and debt to equity ratio and also association with total debt to total asset during period under review. Conversely, the study reveals an insignificant correlation between total debt to total asset and debt to equity ratio on one side and return on equity on the other side. Furthermore, the study suggests earnings per share has a positive correlation with the cost of debt and the total debt to capital ratio whereas the debt to equity ratio, the long term debt to capital ratios and the total debt to asset ratio related in negative manner. The study concludes that financial leverage adopted in this study collectively has a negative and significant correlation with the earnings per share. Thus, it was recommended that the management of the listed companies in Nigeria should be vigilant in their leverage employment in order that the debt cost does not offset its benefits as suggested by the tradeoff theory. The study was quite good however, robustness tests were not conducted to confirm the reliability and validity of the data employed for the study.

Omollo, Muturi and Wanjare (2018) determine the impact of debt financing options on the financial performance quoted in the Nairobi Securities Exchange. The study was for a period of 2009 to 2015 and variables of total debt, short term and long-term were employed as explanatory variables while variable of return on equity and return on assets were utilized as dependent variables measuring financial performance. The study used panel econometric techniques which includes pooled ordinary least squares, fixed effects and random effects in analyzing the impact

of debt on financial performance. The study population consists of forty (40) non-financial companies quoted on the Nairobi Securities Exchange during the period under investigation. Findings revealed that the three explanatory variables adopted in the study (short-term, total debt and long-term) statistically influencing returns on asset negatively using ordinary least square and random effect. Conversely, the independent variables employed in measuring debt have no significant impact on returns on equity using all the three (3) estimation methods (ordinary least squares, fixed effects and random effects) employed for the study. The findings further confirmed it partly in agreement with both the Modigliani and Miller and trade-offs theoretical predictions and partially disagree with the very theories. The study thus recommended that financial managers should re-strategize the levels of debt to make sure that they perform optimally. The study aimed at ascertaining the degree of impact of debt financing options on financial performance and not identifying particular debt option likely to yield higher performance.

Aziz and Abbas (2019) investigated the relationship of various debts financing on company's performance in Pakistan Stock Exchange for a period ranging from 2006 to 2014. The study was targeted at 14 sectors in Pakistan and secondary sources were utilized in the collection of data. Findings revealed debt financing significantly but negatively influencing performance of the firms under study. Therefore, the study recommended that firms should rely more on their internal financing sources than external. This is because the internal source is cheaper, reliable and dependable source of finance in the firms under investigation and during the period of the study. The study was carried out in Pakistan which has different economic variables with Nigeria. Thus, similar studies in Nigeria may document different result.

Paul (2017) studied effect of financial leverage on financial performance in manufacturing firms in Nigeria. The study targeted all the 24 manufacturing firms quoted on Nigeria Stock Exchange; however purposeful sampling technique were applied to arrive at four (4) firms. Data for the study were collected using secondary source and descriptive method and regression statistical tool were respectively applied to describe the data and ascertain the correlation involving the dependent and independent variables employed in the study. Similarly, the study tested the stated hypotheses using descriptive statistics, correlation matrix and regression analysis. The study documented that return on equity is significant to return on assets, assets turnover and net profit margin. The study also discovered that return on assets is significant to return on equity, net profit margin and assets turnover. Furthermore, the study revealed that net profit margin is significant to assets turnover, return on assets and return on equity. Finally, the result found that assets turnover is significant to return on asset return on equity and net profit margin. The sample size applied in the study may seem too small compared with the total population and it may not necessarily represent the entire population. Thus, higher sample size means more representation of the population and it will make the findings more reliable.

Onyinyechi (2019) determined the influence of debt financing on the financial performance of listed companies in Nigeria Stock Exchange during period of 2000 to 2017. The variables employed were return on equity and return on assets as dependent variables while debt ratio, debt equity ratio, equity ratio, long term debt ratio and total liability ratio represented the independent variables of the study. The study utilized multiple regressions for data analyses and findings revealed that all the financial leverage applied in the study statistically impact both return on asset and return on equity positively and significantly. The study therefore recommended that the management of the companies should work harder to optimize the capital structure so as to maximize the returns on assets and equity. Similarly, the management of firms in Nigeria should

double their efforts toward capital structure so as to increase income from their business transaction. Again, this study focused on the effect of debt finance on financial performance and not on performance comparison among the available debts options.

Edore and Ujuju (2020) studied the impact of financial leverage on firm's value in Nigeria. The study used short term, medium term and long term debts as independent variables of the study whereas firm's value was applied as the dependent variable. Pearson correlation coefficient and ordinary least squares regression analysis were employed to test and define the hypotheses for the study. Secondary method was applied in extracting data for the study and result indicated a significant positive impact of long term debt on the firm's value and was significant statistically. Secondly, the study suggested that the short term debts and the medium term debts impact positively and significantly on our sampled listed firms' value. The study concluded that the application of leverage improves the firm's value. It was thus recommended that companies should maintain financing their operations using short term, medium term and long term debts whenever there is need so as to make sure that their value is improved. The study was carried out on the entire firms listed on Nigerian Stock Exchange, thus the finding cannot specifically represent a particular sector. Thus, similar study on particular sector may suggest result that can represent the sector.

Jepkorir and Mwangi Gichure (2019) examined the impact of debt financing on the growth of small and medium scale enterprises in Kapsabet town, Nandi County. Descriptive survey research design was employed and population involves 420 registered small and medium enterprises in Kapsabet Town. However, Yamane's formula was employed to arrive at a sample size of 80 respondents. Similarly, purposive and stratified random sampling techniques to arrive at the sample. The data for the study were gathered using questionnaires and were coded, quantified and analyzed qualitatively and quantitatively. The data were analyzed descriptively using mean, standard deviations, frequencies and percentages and inferential statistics which included regression analysis. The regression result showed that debt financing influenced on the growth of small and medium scale enterprises during the period of the study. The study therefore concluded that there was a positive correlation involving microcredit and the small and medium scale enterprises growth. Thus, it was recommended that small and medium scale enterprises should institute good credit record with the lending houses in order for them to have access to funding ceaselessly. The study was conducted in Kenya and that similar study in Nigeria may reveal different result.

Karuma, Ndambiri and Oluoch (2018) explored the impact of long term debt, short term debt, corporation tax rates and interest rates on financial performance of manufacturing companies quoted in Nairobi Securities Exchange for a period ranging from 2013 to 2017. The study applied descriptive statistics, correlation matrix and regression analysis to analyze the data collected for the study. The study documented that accounts payable, interest on tax and debentures were statistically significant on return on asset. Additionally, bank overdraft, bank loan, expenses deductibles and interest payments were revealed to be insignificant on return on asset. Robustness tests were not conducted on the data thus, the validity of the data and the reliability of the variables applied in the study were not confirmed.

Kithandi (2019) investigated the impact of debt to equity ratio, debt ratio and interest coverage ratio on financial performance. The study was conducted on energy and petroleum sector firms quoted in the Nairobi Securities Exchange. Census sampling was employed to determine the

population size which included all the five (5) firms from the energy and petroleum sector quoted in the Nairobi Securities Exchange. The study was pinned by Trade-off Theorem, Pecking Order Theorem and Modigliani-Miller theorem while secondary data was adopted in extracting data from the published and audited annual financial statements of these firms. The study utilized explanatory research design, multiple regression models were employed to ascertain the association involving the variables used in the study and descriptive statistics were employed to analyze data. The study documented a negative association linking financial leverage and financial performance on the firms under investigation. Based on the findings, the study recommended that companies should strike a balance between application of equity and debt financing. Again, the study was conducted in Kenya with dissimilar economic variables with Nigeria, thus similar study in Nigeria may suggest different result.

Theoretical Framework

The study is anchored on Trade-off Theory. The theory was propounded by Myers (1984). The theory argues that optimum cash is achieved via weighing the benefits and cost of borrowing. Thus, the management of company is responsible of deciding on the debt and equity ratio to include in cash by measuring the cost and benefit incurred from each. Debt capital results to benefits such as tax shield though high debt levels in the capital structure can result to bankruptcy and agency expenses. Agency expenses result from divergence of interest among the different firm stakeholders and becomes information asymmetry (Jensen & Meckling, 1976). However, various scholars have criticized the trade-off theory. According to Luigi and Sorin (2009), trade-off theory was postulated after the deliberations over the irrelevancy theory when corporate tax was added on the theory. This created debts benefits in that it was a tax shield implying a 100% debt financing. Companies with high returns with tangible assets will use more debt than firms with low returns and consequently risky assets (Sheikh & Wang, 2011). The implication of this theory is that some of the firms may end up undertaking projects that do not have positive net present value because some of the securities to be issued may be mispriced giving rise to adverse selection costs. The choice of financing that a firm selects can reduce the adverse selection costs. The choice of financing that a firm selects can reduce the adverse selection costs hence capital structure is vital in asymmetric information (Kemsley & Nissim, 2002). The theory is applicable since the quoted firms carefully select debt levels for their financing were well adjusted to generating higher profits as opposed to those that disregard their debt and equity level.

Methodology

This section of the study presents the methodology to be applied by the study. The study adopts ex-post factor research design using ten (10) years panel data ranging from 2010 to 2019. Multiple regressions were utilized to determine the extent of the influence independent variables on dependent variable of the study. Random and fixed effect models were considered but random effect model proved to be most appropriate based on the result from robustness test. Other statistical tool was STATA 11 version.

Population, Sampling and Sampling Technique of the Study

The target population of the study involves all the nine (9) listed information and communication technology firms in Nigeria as at 31st December, 2019. The study employed purposive sampling and filter sampling techniques. The sampling techniques were adopted because out of the information and communication technology firms listed in the Nigerian Stock Exchange (NSE), two do not have annual financial reports throughout the period of the study, thus they were filtered out. The two firms removed from the study are Airtel Africa Plc and MTN Nigeria Communication

Plc. Thus, seven (7) firms were employed. The list of the information and communication technology firms listed in the Nigerian Stock Exchange as at 31st December, 2019 is as shown in the table below:

<u>S/N</u>	<u>ICT Firm</u>	<u>Date of Incorporation</u>	<u>Date of Listing</u>
1	Airtel Africa Plc	12/07/2018	Invalid Date
2	Charms Plc	12/09/1985	Invalid Date
3	Courteville Business Solutions Plc	04/01/2005	Invalid Date
4	E-tranzact International Plc	07/05/2003	07/08/2009
5	MTN Nigeria Communication Plc	01/11/2000	16/05/2019
6	NCR (Nigeria) Plc	09/12/1949	Invalid Date
7	Omatex Ventures Plc	06/07/1998	Invalid Date
8	Triple Gee and Company	14/4/1980	Invalid Date
9	CWG Plc	26/09/1991	Invalid Date

Source: Nigerian Stock Exchange, 2021

Method of Data Collection

The study utilizes secondary source to extract data. The study specifically collects data from the audited annual financial reports of the seven (7) information and communication technology firms listed in the Nigerian Stock Exchange. The data collected is for the period 2010 to 2019. The period is carefully selected

Dependent Variables

Earnings Per Share (EPS)

Earnings per share measure the performance of a firm in terms of a company's share capital and they serve as profitability measurement. Earnings per share are a calculation of a company's profit apportioned to each of its ordinary shares on a pro rata basis (Dabo, Idris & Salisu, 2018). It is computed by dividing the firm's net earnings by total number of shares for a particular period of time. It is the part of the earnings of the firm, net profit after taxes and preferred stock dividend to be paid to each share of ordinary shares.

Explanatory Variables

Long Term Debt

Long term debt is debt due for repayment in over 12 months and is not included in the current liabilities figure on the balance sheet. It includes mortgages and long term leases, but not general trading liabilities (Akinyomi, 2013). A high ratio usually indicates a higher degree of business risk because the company must meet principal and interest obligations. Potential creditors are reluctant to give financing to a company with a high debt position. However, the magnitude of debt depends on the type of business. For example, a bank may have a high debt ratio but its assets are generally liquid. A firm's utility can afford a higher ratio than a manufacturer because its earnings are more stable (Khalaf, 2013).

Short Term Debt

Short term debt according to Mwangi (2016) is the current liabilities presented in a firms' balance sheet. It is the payable obligations usually within a year such as overdraft facilities. Short term debts are good firms liquidity and performance indicators in comparison with current assets. When

it is greater than current assets, the company is said to have a poor performance of liquidity (Dada & Ghazali, 2016).

Total Debt

Total debt which is also referred to as debt is defined according to the International Monetary Fund (2013) as a direct i.e non-contingent, liability created under a contractual arrangement through the provision of value in the form of assets (including currency) or services and which requires the obligor to make one or more payments in the form of assets (including currency) or services, according to a given repayment schedule in order to discharge the liabilities incurred under the contract.

Model and Measurement of the Study

To examine the influence of explanatory variables (long term debt, medium term debt and short term debt) on the dependent variables (financial performance measured as earnings per share).

$$EPS_{it} = \alpha + \beta_1LTD_{it} + \beta_2STD_{it} + \beta_3TTD_{it} + e_{it}$$

The regression model above measures the effect of independent variables on financial performance of the firm represented by Earnings Per Share (EPS)

Where:

EPS_{it} is the Earning per Share for firm i in time t as a measure of performance

LTD_{it} is the long term debt for firm i in time t

STD_{it} is the short term debt for firm i in time t

TTD_{it} is the total debt for firm i in time t e_{it} is

the error term α is a constant term β_s are coefficients of the explanatory variables

Result and Discussions

Table 1: Summary of Diagnostics Test

TEST SPECIFICATION	Chi2	P-value	Mean Value
Model Specification Test (Ramsey RESET test)	0.83	0.7201	-
Multicollarity Test (VIF)	-	-	1.34
Normality Test (Shapiro-Wilk Test for Normal Data)	-	0.51927	-
Hausman Specification Test	2.33	0.5070	-
Breusch-Pagan/Cook-Weisberg Test for Heteroskedasticity	0.53	0.8667	-
Breusch-Godfrey test Langranger Multiplier Test of Random Effect	13.82	0.0000	-

Source: Authors' calculation 2021.

The diagnostic test summary was as shown on table 1. The data normality test by Shapiro-Wilk test was further conducted to verify for the normality of the data to be studied. The p-value of 0.51927 indicates that the Shapiro test was greater than 5% critical level. This implied that the null hypothesis that the residual was not normally distributed was rejected. Thus, the study concluded that the data employed were normally distributed and it indicates that the error term in all of the cases followed the normal distribution.

The Variance Inflation Factor (VIF) value (1.34) was less than 10 and tolerance value was greater than 0.10 which signifies the absence of multicollinearity in the study explanatory variables. In

other words, the result indicates that multicollinearity issue does not exist as the 1/VIF is greater than 0.1 and VIF is less than 10.

Similarly, heteroskedasticity test was conducted using Breusch-Pagan/Cook-Weisberg test for heteroskedasticity to further verify for the homoscedasticity/heteroscedasticity of the errors across the residuals. The result documents that the p-value is 0.8667 and that signifies that it is greater than 5% significance level. This confirmed the evidence for the absence of heteroscedasticity. Thus, the study rejected the null hypothesis of heteroscedasticity.

Again, to further ascertain for the existence of omitted or additional variable in the specification model of the study, the study made use of Ramsey reset (1969). Result indicated that no existence of specification model error as confirmed by a p-value of 0.7201 which was greater than 5% significance level. This further confirmed that the model of the study was specified correctly.

Hausman Specification Test was further conducted to determine the most appropriate model among random and fixed effect model. The result indicated that there was constant error variation across the panel and that was further proved by the p-value of 0.5070 which was greater than 5% critical level. This signifies that the variation of error across the panel were constant. Consequently, random effect model was the most appropriate for the study.

Finally, to select between random and ordinary least square, the study further conducted Breusch-Godfrey serial correlation Lagrange multiplier test of random effect. The result further confirmed that random effect was appropriate and was proved by the p-value less than 5% significance level. The result indicated that panel effect existed, thus random effect is appropriate for the study.

Table 2. Panel Random Effect Model Estimate Result

Variables	Coefficient	Std. Err	t-statistic	P-value
Constant	0.0327077	0.9149820	0.0356	0.971
LTD	0.5810490	0.0831482	6.9881	0.000
STD	-0.0401044	0.0140027	-2.8640	0.004
TTD	-0.1549285	0.0138188	-11.2113	0.000
R ₂				0.6559
Wald Chi ²				455.49
Wald Chi Sig				0.0000

Source: STATA 11 Output, 2021

Discussion of Findings

Findings from the regression result reveal that the multiple coefficient of determination which is the cumulative R² is 0.6559 and that gives the proportion of the total variation in the dependent variable of earnings per share as explained jointly by the independent variables of long term debt, short term debt and total debts. It, thus, implies that 66% of the total variation in earnings per share in the information and communication technology companies quoted in Nigeria is caused by long term debt, short term debt and total debts variables while 34% of the variations in debt policy of the firms under review caused by other factors not captured by the model are accounted for.

Again, to validate the reliability of the estimated model, findings from the Wald χ^2 of 455.49 proves the fitness or soundness of the debt policy model. This signifies and further confirms the fitness of the model and the independent variables are chosen properly, combined and employed as proved by the significant p-value of 0.0000. In other words, the finding suggests that simultaneously, the independent variables as employed in the study are significantly impacting the dependent variable under study. The result agrees with the findings of Onyinyechi (2019) in a sample of firms listed on the Nigerian Stock Exchange for eight (8) years period (2000 to 2017). Others include that of Edore and Ujuju (2020) on firm's value in Nigeria and Jepkorir and Mwangi Gichure (2019) on small and medium scale enterprises in Kapsabet town, Nandi County. In contrast, the result contradicts that of Omollo, Muturi and Wanjare (2018) on a sample of firms listed on the Nairobi Securities Exchange for a period of 2009 to 2015.

Moreover, the findings also suggest a positive and significant association connecting long term debt and earnings per share as respectively shown by the coefficients and p-value result of 0.5810490 and 0.0000. This signifies that higher long term debt will likely lead to higher earnings per share (financial performance) of information and communication technology firms in Nigeria. This result, however, is not unexpected as it is in line with the study's expectation that higher long term debt is likely to yield high financial performance as it is normally accompanied by comparably smaller percentage of interest and over a long period of time. It may also be that the firms used the long term debts in investing into highly promising project. Furthermore, the result validates trade-off theory adopted for the study. The study therefore reject the null hypothesis which states that long term debt has no significant influence on the financial performance in information and communication firms in Nigeria. This is also reported by Aziz and Abbas (2019) on Pakistan Stock Exchange during the period of 2006 to 2014. Edore and Ujuju (2020) conducted similar study on firm's value in Nigeria and documented both significant and positive impact between the study variables. However, the findings invalidate the study by Omollo, Muturi and Wanjare (2018) on quoted on the Nairobi Securities Exchange for a period of 2009 to 2015.

Again, the statistical findings established a slightly negative but significant influence between short term debt and earnings per shares in the firms being studied revealed by a negative coefficient of -0.0401044 and ap-value of 0.0004. This implies that during the period of the study, for any N1 increment in short term debt in the firms under investigation, its earnings per share reduces by less than 1% (-0.0401044), however it is significant. This finding signifies that the negative influence may be as a result of high interest rate associated with short term debt. Based on this finding, the study rejects the null hypothesis that short term debt has no significant impact on the financial performance in information and communication technology firms in Nigeria. The outcome support finding of Kithandi (2019) on energy and petroleum sector firms listed on the Nairobi Securities Exchange.

Finally, the findings also suggest that total debt significantly but negatively influencing earnings per share in the firms under investigation. This is confirmed from the result of coefficient of 0.1549285 and p-values of 0.000. This indicates that while the total debts increase by a single unit, the value of the earnings per share in the firms under review will significantly reduce by less than 1% (-0.1549285). This result implies that total debts obtained by the firms being studied contributed to decrease in the firm's financial performance. The negative impact may be the effect of high interest rates of short term debts involved in total debts. Based on this finding, the study form the basis for the rejection of the null hypothesis that the total debt has no significant impact on the financial performance of information and communication technology. The outcome of this

study is in line with work of Omollo, Muturi and Wanjare (2018) on firms listed on the Nairobi Securities Exchange for a period of 2009 to 2015 and that of Kithandi (2019) on energy and petroleum sector firms listed on the Nairobi Securities Exchange who documented negative and significant impact of financial leverage on financial performance of energy and petroleum sector firms in Kenya.

Conclusion and Recommendations

The study examines the influence of debt policy on earnings per share of information and communication technology firms. The study establishes that long term debt statistically, positively and significantly influences earnings per share in the firms under review. However, it is discovered that short term debts and total debts both negatively but significantly influence earnings per share in firms being investigated. Thus, in information and communication technology firms, long term debts significantly and positively influence earnings per share, short term debts and total debts significantly but negatively impact earnings per share. These findings inform the study to recommend that the management of the information and communication technology firms in Nigeria should re-strategize in identifying its debt financing option that is likely to yield high financial performance. Based on the findings of the study, it is recommended that the firms under investigation should focus more on long term debt as it yields highest performance when compared with debt financing options.

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UNDERSTANDING THE ROLE OF ENTREPRENEURSHIP EDUCATION ON ECONOMIC DEVELOPMENT IN NIGERIA

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Abstract

Entrepreneurship is a process that involves creation of value through the fusion of capital, risk taking, technology and human talents. It has been a source of employment and economic development in any country. The growing number of entrepreneurs in an economic environment are the major determinants of economic development of both developed and developing countries including Nigeria. Realizing the entrepreneur's importance, therefore, Federal Ministry of Education in Nigeria reviews its curriculum on education to reflect the provision of functional education in the country, in order to encourage students and other youths to take-up entrepreneurship courses and merge it with acquisition of practical experiences at the college and university levels. On the other hand, economic development is an upward change in which the real per capita income of a country increases over a period. Hence, to achieve this, is as a result of the activities of entrepreneurs in the country. Therefore, the growth of entrepreneurs is attributed to the entrepreneurship education being provided in the Nigerian Tertiary Institutions. Some of the objectives of entrepreneurship education include the provision of functional education to youths that will enable them to become self-reliant; to reduce high rate of poverty; and, the help the youths to be creative and innovative to set-up businesses that will help in developing the Nigerian economy. Most of the leaders and potential leaders lack the knowledge of the significance of entrepreneurship education. This is why the researcher decided to embark on this study. The researcher used historical research design to find out whether or not entrepreneurship education contribute to economic development, and decide on the role entrepreneurs played in economic development in Nigeria.

Keywords: Economic Development, Entrepreneurs, Entrepreneurship, Entrepreneurship Education.

Introduction

It could be recalled that, since early 1970's, Nigerian primary schools curriculum had acknowledged the importance of entrepreneurship skills acquisition as there was a subject being taught to the pupils known as craft education. Children were taught how to produce creative traditional products which were produced in the local environment, such as local Fan known as "Mafeci" in Hausa language, containers cover (Fai fai) local ropes (Igiya) and the farming activities, which resulted in creating school farm. Production of traditional caps (known as Kube). Therefore, the inclusion of the course and other activities were an attempt to encourage the pupils to become entrepreneurs and self-reliant. However, government neglected this program at primary level, they only extended two of these programs to secondary schools level and not included in the curriculum, but at the school extra-curricular activities, that is under the club and societies such as farmers club where the schools encouraged the establishment of school farm and poultry farming. English, Yoruba and Hausa clubs e.t.c, the members of these clubs and societies later transformed to Dramatist of these time.

However, it was not a compulsory programme. Although government established some technical secondary schools and vocational training centers for the purpose of creating self-reliant population, most people were discouraged from joining these institutions because of laws and decrees that relegated those who went through those types of education, both in placement and terminal point for those who happened to join government employment and other private institutions. The emphasis on the type of certificates obtained, not what contributions an individual would put in the work contributed immensely towards drifting from technical education to other

types of education in Nigeria. Furthermore, perhaps, what led to the neglect by the then governments might not be unconnected with the limited number of graduates looking for government jobs, and there were a lot of vacancies for employment of both the graduates and non-graduates.

Now that there are abundant supply of labour and very limited jobs available which lead to demand becoming greater than supply governments are compelled all over the world to look towards the entrepreneurship skills acquisition. It also leads to the government of various countries both developed and the third world to pay more attention to the entrepreneurship skills acquisition by their teeming youths. Nigeria which is one of the developing countries, has now focused more on entrepreneurship skills acquisition programs, which had become mandatory upon the tertiary institutions to offer, both the practical and theoretical aspects. Duze (2010) observes that many economies of the world believe that their industrialization and technological advancement is a result of the entrepreneurship and its education. He further raised a very vital question and the answer to the question suggests that entrepreneurship is the answer to economic development question. The question raised is “Are nations developed because they are rich or they are rich because they are developed?” Duze further inquires that, if developed because they are rich, why is Nigeria, Kuwait, Saudi Arabia the world oil richest countries in the world are not as developed as the western giants? While countries who are not as rich as they are, have become highly industrialized? The answer he gives himself is the existence of “Missing Link”, which he refers to as the entrepreneurship. According to Robert (1985) and Bird (1988), entrepreneurship is the bedrock for achieving rapid economic growth, development and modernization of nations based on some of the reasons above, now national assembly is in its second reading of the bills equating and recognizing the importance of technical education with that of university which leads to people to become self-reliant.

Oduma (2012) defines entrepreneurship as a process which involves creation of value through fusion of capital risk taking, technology and human talent. While Robert (1985) defines entrepreneurship as a process of creating something of value which is new and different from others by absolute devotion of the necessary time and effort and accompanying financial, psychological and social risks as well as receiving the resulting rewards monetary and psychic or personal satisfaction. However Duze (2010) views entrepreneurship as the acquisition of necessary skills matched with motivativeness, creativity, boldness, confidence, drive, energy and courage to be able to create employment for self and others.

Apparently the definitions above have shown that to be involved in entrepreneurship, there are some series of activities that must be done in order to achieve the desired goals. More over an entrepreneur must possess certain skills which must be learnt overtime. The reality is that, any country to be well developed must have sufficient number of successful entrepreneurs in the country. Therefore, that is why the researcher focuses on the need for giving proper entrepreneurship education to our teeming youths in Nigeria.

Methodology

The researcher used historical research design and textbooks, journals and other scholar’s presentations in compiling this study.

Objective of the Study

- To find out whether or not entrepreneurship education contribute to economic development of Nigeria.
- To determine the role of entrepreneurs and entrepreneurship in economic development of Nigeria
- To find out the challenges of economic development in Nigeria.

The Conceptual Framework

The concept of entrepreneurship has its origin from a French word known as “entreprendre” which simply means to “undertake” hence, in business it means to start a business. According to Suraj (2016) Entrepreneurship refers to the “discovery, evaluation and exploitation of opportunity by creating a new business or improving on the existing one”. While Boluromi and Ade-cole (2009), Walter (1989) describe entrepreneurship in three various attributes thus; ability to perceive profitable business opportunities, willingness to act on what is perceived, and the necessary organizing skills associated with the project. Furthermore, Stone, Freeman and Gilbreths (1995) define entrepreneurship as a process which involves the initiating changes in production. However, Osuala (2004) in Oduma (2012) asserts that entrepreneurship is a process of using available capital in any form of business activities in an open and free market economy for the main purpose of making profit. Moreover, Oduma (2012) further cites another definition from Osuala (2004) that entrepreneurship is the ability to set up a business enterprise as different from being employed.

The various definitions above have brought various factors which must be obtained before an entrepreneurship becomes effective. Suraj (2016) believes that anyone engaging in an entrepreneurship must be able to have a sense of discovering business opportunities and capable of making effective evaluation of the opportunities in order to create an entirely new business ventures or improving on the already existing one so that it will result to an incremental wealth. On the other hand Bolurunmi and Ade-cole came up with the ability to perceive opportunities willingness to act in order to exploit the opportunities perceived and organizing skills. Therefore it is apparent that whoever wants to engage in any business must possess these skills and factors before he/she can succeed. While Stoner et al. (1995) highlights that initiative to respond to changes in various production activities are paramount to success in engaging into an entrepreneurship. Oduma (2012) asserts that entrepreneur signifies activities using capital which is available to create wealth in a free market economy. She further describes it as the ability to create employment for the actors and other people within the society. Hence, this is what brought us to the issue of an entrepreneur in the economy.

The Concept of Entrepreneur

The concept of entrepreneur has been discussed by various scholars. Entrepreneur is someone who combines the other factors of production, in order to create a business venture; is a person who has initiative and faces challenges with confidence and zeal to achieve a target. An entrepreneur is different from an entrepreneur. An entrepreneur is someone who has innovative ideas and transforms them to profitable activities within the organizational environment, while entrepreneur is someone who has innovative ideas and transforms them into profitable activities outside the organizational environment. The aim of the distinction is to highlight the differences between these two words which are usually mixed up. Therefore, the researcher is going to dwell on entrepreneur. Oduma (2012) advances various definitions of entrepreneur based on expert views. Thus, McClelland describes it as follows; “An entrepreneur is an individual who takes moderate risks and brings innovation”. While Richard Contillon views it as “the agent who buys means of

production at certain price in order to combine them into product that he is going to sell at prices that are uncertain at the movement at which he commits himself to his cost". While J.B Say views it thus, "Entrepreneur is an economic agent who unite all means of production. On the other hand Schumpeter asserts that, entrepreneur is basically an innovator who introduces new combinations", which he describes as a change agent, the changes he explains occur in the products, process and methods of production (Oduma, 2012).

Therefore entrepreneur can be defined as an innovating person who has developed ongoing business activities. Meredith (1983) defines an entrepreneur "as a person who possesses the ability to recognize and evaluate opportunity, assembles the necessary resources to take advantage of them and take appropriate action to ensure success". Therefore, the definitions above by various scholars actually corresponds to views of Garba (2010) and that of Oduma (2012). They separately see an entrepreneur as someone who is innovative and interested in environmental scanning and perseverance in achieving his set goals and objectives.

In the actual sense, entrepreneurs are people who constantly discover new market and try to find out how to supply these market efficiently and effectively to make profit. They are constantly searching for changes, response to the changes and exploit them converting those changes into business opportunities. To be able to succeed in the practice of entrepreneurship, the person involved must possess certain characteristics that are learnt over time or through training.

Therefore this is what brought us to the issue of entrepreneurship education.

The Concept of Entrepreneurship Education

As earlier mentioned in the early 1970's, entrepreneurship education was included in the primary schools curriculum and some technical secondary schools and vocational training centers across the country. However, the government thereafter technically neglected those types of education through laws and decrees passed which segregated those who acquire such knowledge with those who acquire university degrees, this discouraged people from enrolling in such institutions. Now that Federal Government of Nigeria has realized the need for entrepreneurship education to be included at all levels of the educational system in the country, it becomes apparent that entrepreneurship education is a must, no matter which programme a student is undergoing. Akpan, Effiong and Ele (2012) opine that entrepreneurship education is a learning process which must be started from the elementary level of educational system. They further explain that the standard of students and their performance indicators usually constitute a framework for the teachers to use in building and developing appropriate objectives, learning activities and assessments for their target audience. In view of the above assertions, it is what Hassan Usman Katsina Polytechnic Katsina quickly moves to sensitized students on the theoretical aspect of entrepreneurship and placing them on entrepreneurial practical work, which is mandatory for each student to undergo the training before he/she graduate (HUK Polytechnic Entrepreneurship Circulars 2016, 2017, 2018, 2019, 2020). This will definitely help the youth and citizens to get entrepreneurial skills and experiences to be able to become self-reliant and create job for themselves and others. According to Brown (2000) in his book *Entrepreneurial Teaching Guide*, entrepreneurship education should be designed in such a way that it will communicate and inculcate skills, knowledge competencies and value required to identify business opportunity, organize and start new business venture. In other words, it is all about transforming an idea into reality, instead of talking about how to do it. While Akpan, Effiong and Ele (2012) quotes the definition of Izedonmi and Okafor (2010) that entrepreneurship education is directed towards the development of youth with passion for multiple

skills. It is aimed to reduce the risk associated with entrepreneurship thoughts and guide the firm successfully through its initial stage to maturity.

The implication of this definition is that youths should be taught the necessary skills and other factors they learn and make it their habit, so that they may be able to organize and manage the business ventures they establish which will help them to create employment for themselves and others in the society.

Furthermore, Akpan, Effiong and Ele (2012) defines entrepreneurship education as the myriad of activities aimed to enable an individual to assimilate and develop knowledge, skills abilities values and understanding beyond the narrow field of activities but which permit a broad range of problems to be identified, defined, analyzed and solved. Therefore this definition highlights that entrepreneurship education is beyond the theoretical aspect of the teaching in the classroom but extended to placing them on practical aspect of this skills, as it is now being practiced in Hassan Usman Katsina Polytechnic, Katsina (Entrepreneurship Circular, 2021).

Bugaje (2015) asserts that in Nigeria graduates of vocational and technical institutions are highly skilled entrepreneurs, but the society does not seem to encourage the youths to take this type of education. These discourages the youth to willfully attend the technical/vocation skills. Hence, there must be effective strategies for entrepreneurship education in Nigeria.

Objectives of Entrepreneurship Education in Nigeria

According to Bugaje (2015), the following among others are the objectives of entrepreneurship education after reviewing presentations of different scholar's articles;

- a) To offer functional education to youth that will enable them to be self-employed and selfreliant;
- b) To provide to the youth and graduates adequate training that will enable them to be creative and innovative in identifying novel business opportunities;
- c) To serve as a catalyst for economic growth and development;
- d) To offer tertiary institutions graduates opportunities, to take advantages of business initiative;
- e) To reduce high rate of poverty;
- f) To create employment in the economy;
- g) Reduction in rural urban migration;
- h) To provide young graduates with enough training and support that will enable them to establish career in small and medium sized business;
- i) To inculcate the spirit of perseverance in the youths and other adults which will enable them to persist in any business venture they embark on.
- j) To create smooth transition from traditional to a modern industrial economy;

Nnazor (2005) and Garba (2010) opine that the aims and objectives of entrepreneurship education is to equip the learners with skills, knowledge and disposition that can help them develop or implement business plan.

Challenges of Economic Development in Nigeria

Currently Nigeria as well as other developing countries are facing numerous problems which are impediments to their economic development. Some of these problems are the growing number of unemployment among the teaming youths coupled with insecurity which is persistent and crippling the economy of those countries. The root causes of the economic problems in Nigeria

emerged as a result of frequent insecurity due to high unemployment rate caused by poorly designed curriculum in our educational system for too long.

Duze in 2010 observes that, in Nigeria today school leavers including university graduates in their millions, roam the streets in search for non-existing white collar jobs. He further states that, it has become difficult for school leavers at all levels and type of education in Nigeria to avoid falling into labour market. Based on the view above, it is suggested that the long term effect of poor curriculum has contributed to challenges of economic development. These teeming youths who after graduation find themselves in between the devil and the deep sea of unemployment, can be an easy target of employment into various criminal activities, such as banditry, Boko Haram, thuggery, kidnapping, arm robbery etc. Although Nigerian education system has now made it mandatory for each institution to provide a functional education like entrepreneurship education and other vocational training in order to reduce the number of people looking for employment, and increase the number of entrepreneurs who constantly create job for themselves and others.

The insecurity in the country has degenerated to an alarming level in which it forces small and medium scale businesses having a bottleneck in performing their economic activities which push people more into the state of poverty. Recently Katsina state government passed a circular which restricted some business operations in some of the major markets across the state and restriction on motorists to run on other major roads linking to various towns and neighboring states, as a result of incessant insecurity situations across the state. This has actually hampered business activities across the state, which mostly affected the small and medium entrepreneurs who are the backbone of economic development of any country.

Again the circular restricted movement of motor cyclist and tricycle's to ten 'o'clock (10pm) in the night, which forced small business owners in the major cities/towns across the state to close their business before the limited time granted. This seriously affected their income as most of these businesses operated at night (Katsina State Circular, 2021). In 2019, the emergence of Corona Virus affected small, medium and large enterprises all over the world. It forced government all over the world to close down business educational and social activities, which resulted in crippling businesses in the country as well as all over the world. This has seriously affected the business activities and the resultant loss of capital and aggravating poverty and unemployment in the economy. Therefore, covid19 also posed a challenge to world economy generally. Kidnapping, banditry and cattle rustling continues to drain the assets and pockets of the victims and pushed them more in the periphery. These further did not allow farmers to conduct their farming activities which represented the basic source of their livelihood, and many communities were displaced with nothing to eat not to talk of engaging into any entrepreneurial activity. It is therefore, a serious challenge to economic development in Nigeria. The emergence of Boko Haram insurgency and that of Niger Delta militants has become a serious challenge to the economic development in Nigeria. Hence, the challenges above have negatively affected the GDP (Growth Domestic Product), GNP (Growth National Product) and the real per capita income of the country.

Entrepreneurship, Entrepreneurship Education and Economic Development

Economic development simply means a process of an upward change in which the real per capita income of a country increases over a period. While entrepreneurship is regarded as the ability to set up a business enterprise which is different from being employed. It is also referred to as the discovery, education and exploitation of opportunity by creating a new business or improving an existing one, that will have positive impact on the real per capita income, GDP, GNP that have

significant effects on the country's economy. On the other hand, entrepreneurship education is directed towards the development of youths with passion and multiple skills aimed to reduce the risks associated with entrepreneurship activities and develop guidelines to firms for successful business activities.

Therefore, entrepreneurship has a very vital role to play in the economic development of a country. It is one of the important inputs in the economic development. Hence, the greater the number of competent entrepreneurs a country has the better economic growth and development it will have. According to Johri (2014), the history of economic development of the most advanced countries like USA, Japan and Russia was as a result of entrepreneurship which is inevitable in economic development. He further asserts that the crucial and significant role played by entrepreneurs in economic development of advanced countries is what motivated the third world countries to accept the importance of entrepreneurship as a key factor to economic growth and development.

The specific contributions of entrepreneurship towards the economic development of a country are itemised by Johri (2014) as follows:

- i. Employment generation to the entrepreneurs and others;
- ii. The national income which consist of the goods and services produced in the countries, the goods and services produced for consumption within the country and to meet the demand of export that will improve the balance of payment and trade respectively;
- iii. Balanced regional development through the growth of industry and business which leads to public benefits e.g transport facilities, health, education entertainment etc;
- iv. Dispersing of economic power through developing a large number of entrepreneur that helps in the dispersing of economic power among the population in order to help in weakening the harmful effects of monopoly;
- v. Helps in bringing a better standard of living through the crucial and important role played by entrepreneurs in achieving higher economic growth by having the ability to produce goods and services at lower price to the community that leads to increase of purchasing power of the member of the population;
- vi. Creation of innovation through the activities of entrepreneurs in bringing new ways of production which leads to economic development;

Again entrepreneurship education has always contributed immensely to helping in training and guiding entrepreneurs who are the backbone of economic growth and development of any country. Entrepreneurs whose entrepreneurship education is designed to motivate, guide and inform them about the necessary characteristics and confidence must be bold enough to translate their ideas into realities by establishing a business venture. As asserted by Akpan, Effiong and Ele (2012) in Schumpeter (1947), entrepreneur is the center of integrated model of economic development. Therefore, entrepreneurship education contributes a lot towards the economic development of any country.

The Duties of Entrepreneurship Education Facilitators /Trainers

According to Akpan, Effiong and Ele (2012) in Ilesanmi (2000) the following are the roles of trainers or facilitators in entrepreneurship education to the trainees:

- a) To formulate strategies for stimulating trainees towards self employment, especially in the oral sensitization stage;

- b) To explore various possibilities for exploiting and benefiting from activities of different agencies assisting at the pre-start up levels of new venture development. Eg. Through invitation of successful local entrepreneur to deliver lectures and advice to the trainees;
- c) To be able to identify entrepreneurial skills in youths and motivate them to become selfemployed;
- d) Provision of basic skills, knowledge and information for starting and successfully managing an enterprise;
- e) Provision of advisory services/consultancy on continuous basis to trainees, ex-trainees and interested persons;
- f) They should make constant evaluation of trainees or their potential entrepreneurial capabilities through the use of various techniques and challenge them(trainee) to build on their present strength;
- g) To help the trainee on the possibility of obtaining credit facilities and other services from relevant organizations;
- h) To help in attaching the youths to suitable entrepreneurs for apprenticeships and continuously to monitor their progress for the period stated. For instance, in Hassan Usman Katsina Polytechnic Katsina, they attach the final year students to practicing entrepreneurs on various trade during the practical mandatory entrepreneurship program.
- i) To guide the trainees in the preparation of business ventures feasibilities reports for effective performance;
- j) To help trainees and potential entrepreneurs in identifying self-employment opportunities and advise them in selecting suitable venture to enter into; and
- k) To adequately provide information on business and self-employment as a career in the country.

Effective Strategies For Entrepreneurship Education in Nigeria

Bugaje in Ayodele (2006) Oduma (2012) and Hassan Usman Katsina Polytechnic circular on entrepreneurship (2016) identify the following as the strategies for providing effective entrepreneurship education to the trainees in Nigeria:

1. There should be some forms of genuine school based work, learning incorporated in some studies as part of national economic development strategies for instance the federal ministry of education in Nigeria has made it mandatory for the students in tertiary institutions to take a course on entrepreneurship no matter which programme the students pursue. Furthermore, the development of apprenticeship scheme would give new graduates some work skills and experience, which will make it very easy to chose the type of business ventures in the future;
2. To pool local, public and private funds to create a small venture capital fund. In Katsina for example, there are various microfinance banks established by private business men and Katsina state government. The administration of Barrister Ibrahim Shehu Shema established several microfinance banks across the state in order to assist the active poor within the society to obtain capital to start or expand their business;
3. School based enterprises, where students identify potential business plan, create and operate small business using the school as a breeding ground of entrepreneurs e.g entrepreneurship development centre in Hassan Usman Katsina Polytechnic Katsina;
4. Providing small business schools where interested students and community members can participate eg. Katsina craft village established by the administration of Barrister Ibrahim Shehu Shema;
5. Develop entrepreneur internship programs e.g industrial training programmes as mandatory entrepreneurship training for graduating students in Hassan Usman Katsina Polytechnic, Katsina;

6. Establishing an enterprise college aimed at fostering the specific skills set required for entrepreneurship to serve as skill acquisition centers for the youth e.g Ibrahim Shehu Shema Institute of Technology/Business School Katsina;
7. Creating an economic friendly political environment. Therefore, the support of political leaders and top government functionaries is necessary to entrepreneurship development program e.g TETFUND Sponsorship of building Hassan Usman Katsina Polytechnic entrepreneurship center, NBTE instruction on every department in each polytechnic of the federation to offer an entrepreneurship as a course unit and every graduating student must undergo practical entrepreneurship training and graduate loan scheme introduced recently;
8. To solicit the philanthropist and politicians to create entrepreneurship training centers within the communities eg. Umaru Musa Yar'adua Human Development Centre in Katsina which was established by Engineer Muttaqa Rabe Darma;
9. Improving on the government taxation on small scale business, by providing tax holiday and reduction on the percentage charged;

Conclusion

It is observed that previous administrations in Nigeria actually neglected the importance of entrepreneurship in the economic development and well being of members of the society. However, it was realized there was high rate of unemployment which led to the emergence of high rate of poverty among the citizens. It has prompted government at various levels to come up with various policies that would help people to become self-reliant. Federal government through its various agencies, emphasized on giving entrepreneurial training to the youths on various fields. Federal ministry of education instructed all agencies under its control to redesign its curriculum to provide functional education in which entrepreneurship education becomes mandatory for students pursuing all courses offered in tertiary institutions.

This paper also concludes that entrepreneurship education and training is one of the best strategy to motivate and train potential and practicing entrepreneurs that would create more employment and reduce criminal activities in the country. Therefore, government at all levels are trying to encourage inculcating entrepreneurship spirit in the Nigerian youths.

Recommendation

1. Government should give more priority on entrepreneurship and technical education;
2. Government should speedy the signing of the bills which abolish the dichotomy between a technical education i.e HND and university degree because entrepreneurship education and technical education have more potentials in making students to be self-reliant than the university education;
3. Government should put more efforts in curving the menace of Banditry, Kidnapping, Cattle Rustling, Farming Haram and Boko Haram issues in the country to allow people conduct their business activities in peace;
4. 9-4 system of education designed to help people to acquire trade skills while learning how to read and write should be implemented properly;
5. Adequate attention to be given entrepreneurial development in the country through the provision of good economic environment by the government. This will encourage adequate entrepreneurial activities;
6. Government should give more emphasis on functional education which will lead to the graduates to creating employment for themselves and others;

7. Government at all levels should show appreciation to those people who voluntarily establish skills acquisition centers for the communities;
8. Governments should put more efforts to ensure security of the country is restored as appropriate, so that Nigeria and good citizens of Nigeria exploit the large deposit of various mineral resources in our land, it is well known that we have oil, gold, diamond and other mineral resources in areas like Sambisa forest, Zamfara, Birnin Gwari, Sokoto and Niger forests; and,
9. Government should enter into dialogue with the foreign countries perceived to be involved in illegal supplying of arms to the bandits.

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INTERNET AS A TOOL FOR ENHANCING ACADEMIC PERFORMANCE OF STUDENTS IN THE DEPARTMENT OF TECHNICAL EDUCATION HASSAN USMAN KATSINA POLYTECHNIC

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Abstract

This study examines the impact of internet as a tool for enhancing Academic Performance of students in the Department of Technical Education, Hassan Usman Katsina Polytechnic. Three research objectives were formulated and equally three research questions were derived from the research objectives. The total population of the study was 50 and 44 were selected as sample based on the recommendation given by Krejcie and Morgan; the Descriptive Survey Design was used for the study. Cluster random sampling technique was employed for the study. Questionnaires were used for data collection. It consists of twelve (12) items. The data collected were analysed in tabular form using Likert scale, percentage and frequency. The investigation also revealed that only 89.5% of the respondents made use of internet. However, the Internet has contributed positively to the performance of students in Technical Education Department because majority of the students made use of Internet. It also found that there were many factors affecting the internet browsing in the department which included poor network or inefficient network services. These no doubt made browsing difficult. Furthermore, it is recommended that, the Polytechnic Authority should provide Internet services everywhere in the school available to students always.

Key word: Internet, Browsing, Network service, Students, Academic Performance.

Introduction

This study examines the impact of internet as a tool for enhancing student academic performance in Hassan Usman Katsina Polytechnic Department of technical Education, Internet refers to the convergence of audio, visual, audio visual and telephone network with computer through single cabling. Link system-learning is an international information network linking different varieties of computers via a board array of electronic wireless and optical networking over the long distance. The World Wide Web is a global of computer network linking together over the long distance. It was created by the American military as a means of communication and has been in existence since the (1905's).

Rapid development in technology has seen improvement in communication lowering costs of life. The implication of this is that internet is now more widely available to the people. Since the internet is now available to a wide sector of the population in the western world, many educational establishments have seized the opportunity (Audu, 2006).

The internet is valuable for information seeking for student looking for ideas, for Project and Assignment especially the final year students who must carry out research work to meet the academic requirement criteria for the award of various certificates in the higher institutions of learning. With over 100 millions of web sites on the net, it serves as a useful tool for lecturers in helping to prepare lesson plans. Currently are a number of sites, in America dedicated to provide educational materials (Adeghoji & Toyo, 2006) and also to ascertain the accuracy of any information obtained during the course of research works. Internet provides a forum to promote group discussion, which is a time and distance independent. There are many forms of group discussion which include video cameras and microphones. Members of the group actually see and hear each other via the key board (Darzamola, 2004) This has particularly helped the distant

learning in communicating with different lecturers including project supervisors to provide proper guidance during research work. It is in the realization of this development in various area that this paper tries to examine the role of the internet in enhancing student academic performance in the Department of Technical Education, Hassan Usman Katsina Polytechnic, Katsina state.

Literature Review

Internet is the global system of inter connected computer networks that uses the internet protocols suite (TCP/IP). The internet according to Wells (2000) and Telia (2007) is a computer mediated communication tools providing the individuals with access to a broad spectrum of information and unique communication techniques of communication technology.

However, Shatta (2002) posits that internet is a common super high way that links hooks and uses the entire world in the global village where people of different or the same races can easily act in touch, see or speak to one another. It is the largest network in the world that allows computer users to communicate and access electronic data base with ease. Internet has always helped through the promise of improving education. Wanger (1998) and Osunade (2003). This shows that e-learning can only be possible by using electronic machines.

Despite its role in obtaining information with ease from all over the world, Osunade (2003) maintains that the uses tend to be side tracked with a lot of unnecessary information. This is because internet is not owned by anybody and there are no checks or censorship of information available. This may sometimes hinder the e-learning that will make some students to be visiting unnecessary sites not their main area of specialization.

Audu (2006) and Ojedekum (2001) reveals that internet has many functions in the academic cycle; these include provision of round the clock access to whole varieties of information sources globally and the ability to chose and share experiences with colleagues. To be able to derived maximum benefit from these attribute of Information and Communication Technology (ICT) Ozioko (2005) advises that users must possess some qualities and skills.

Statement of the Problem

The problem of the study is: Internet as a tool for enhancing academic performance of student's in the Department of Technical Education. Internet has nowadays become a global issue. This is because internet affects every aspects of our life. Eventhrough, internet has many advantages and disadvantages, but its advantages outnumbered its disadvantages in many aspects. Searching for knowledge is now easy with the availability of internet. Internet makes it very easy to tap information and also disseminate the information within a blink of an eye. When we look at it, it can be found everywhere; economy, heath, security, transport and education. This research design is to look at the role of the internet in the educational sector especially in the area of improving student academic performance.

Some researchers discover that the internet elevate academic performance of the students while a few researchers show adverse affect behind those dissenting views on the role of internet in enhancing students academic performance. It is very important to carry out this study to examine these controversies with regards to the students. Hence, it will provide us with the basic and clear knowledge to control or encourage the use of internet for the academic pursuits.

This paper focuses on enhancing the academic performance of students in Technical Education Department because the students are believed to enrol into Polytechnic Education with clear purpose (Spence 1983). Among the purposes are the need to raise the student self actualization. It is therefore necessary to conduct the study of this nature. “The role of internet on enhancing students’ academic performance in the Department of Technical Education Hassan Usman Katsina Polytechnic”.

Objectives of the Study

The main objective of the study is to assess educational status and competencies needs of the students using internet browsing in the Academic performance in the Department of Technical Education. The study will seek to achieve the following objectives:

- i. Find out whether the internet has any contribution to the performance of students in technical education.
- ii. Find out the availability of effective internet service regularly in the department.
- iii. Find out the factors affecting the internet browsing by the student of technical education.

Research Questions

- 1 Does the internet have any contribution to the performance of students’ in Technical Education Department?
- 2 Do the students of Technical Education find internet services available regularly in the department?
- 3 Does the poor or inefficient network affect the knowledge acquisition of students in Technical Education Department?

Null Hypothesis

HO: 1. Internet does not affect the students’ academic performance.

HO: 2. Students of Technical Education do not use the internet in their research work.

HO: 3. Internet browsing does not enhance knowledge acquisition in technical education programmes.

Population of the Study

Population is any group of individuals that has one or more characteristics in common and that the population of the study consists of all N.C.E III students in Hassan Usman Katsina Polytechnic, in the 2020.

The population comprises all the N.C.E III students of the Department of Technical Education, they were categorised based on the area of specialization e.g Automobile Technology, Electrical, Metal Work, Wood Work, Building Technology. The student use computer more often in pursuit of their courses of studies for convenience.

Methodology

Descriptive statistics will be employed using Simple frequency count and percentage. The percentage was used from different responses from questionnaire and divided by the actual numbers of the respondents and multiply by hundred. The formula is given below: Percentage (%) = $M \times 100N$

Where M is the sum of different responses, N is the actual number of respondents.

The respondents are students of Hassan Usman Katsina Polytechnic Department of Technical Education.

Discussion of Findings

Internet has any contribution to the performance of students in Technical Education Department. Table 1.

S/N	ITEMS	W MEA N	SA	S D	CALCULATED MEAN	REMAR K
i	Does the internet have any impact in Tertiary Institutions	2.5	15	6	2.85	Agree
ii	Do you agree that internet enhance students academic performance		12	7	2.28	Agree
iii	Do students in Tertiary Institutions rely on internet when the assignment is given to them?		14	7	2-66	Agree
iv	Is internet user well academically oriented?		13	9	2.47	Disagree
v	Internet helps the students frequently in their course of study	2.5	16	5	3.04	Agree

The Table 1 reveals that only 15 respondent out of 21 are strongly agree that internet contribute positively to the performance of students in technical education department, only 6 respondents are strongly disagree with the contribution of internet to the academic performance of student in technical education. However, from the result obtained 12 respondents are strongly agree that internet enhances academic performance of students in Technical Education Department, and only 7 respondents out 21 are strongly disagree with the views. Another research question was raised. Do the students of tertiary institution rely on internet when assignment is given to them? Out of 21 respondents 14 are strongly agree that, the students of tertiary institutions mostly rely on internet when assignment is given to them or otherwise. And 7 respondents are strongly disagree with the views. However, 13 respondents are strongly disagree internet users well academically oriented and only 9 respondents are strongly disagree with the views. Furthermore, another research question was raised is internet helps the students frequently in their course of study? 16 respondents are strongly agree that internet frequently helps the students in their course of study and 5 respondents are strongly disagree with the view.

Q2.The students of technical education find the internet services regularly available in the department. Table 2

S/N	ITEMS	W MEA N	S A	SD	CALCULATE D MEAN	REMARK
i	How frequently do you think that internet affects performance in your studies?	2.5	17	4	3.23	Agree
ii	Have you been trained on internet skills for academic purpose		15	6	2.85	Agree
iii	Do you use internet as a means of library?		14	7	2.66	Agree

iv	Internet serves as a means of malpractice during examination.	2.5	7	14	1.33	Disagree
v	School authority uses CCTV camera's to trace malpractice cases		6	15	1.14	Disagree

How frequently do you think that internet affects performance in your studies? Out of 21 respondents 17 respondents are strongly agree that internet affects academic performance of students in the Department of Technical Education, and only 4 respondents are strongly disagree with the views. Secondly another research question was raised. Have you been trained on internet skills for academic purpose? 15 are strongly agreed that they acquire internet training for academic purpose and only 6 respondents are strongly disagree with the views. Do you use internet as a means of library? Out of 21 respondents 14 respondents are strongly disagree with that they use the internet as a means of library for developed their lecture notes and for other school activities, and only 7 respondents are strongly disagree with the views. Fourthly, another research question was formulated like Internet serves as a means of malpractice during examination. 21 respondents are strongly disagree that they are not using internet as a means of malpractice, and 7 respondents are strongly agree with the views. School authority uses CCTV camera's to trace malpractice cases, out of 21 respondents 15 are strongly disagree that the school authority is not using CCTV cameras to trace malpractice cases and only 6 respondents are strongly agree with the views.

Q3. The poor or inefficient network of internet affects knowledge acquisition of students in Technical Education Department.

Table 3

S\N	ITEMS	W MEAN	SA	SD	CALCULATED MEAN	REMARK
i	Department of Technical Education have no efficient network for browsing.	2.5	15	6	2.85	Agree
ii	Do you suffer from network problems in the Department of Technical Education?		13	8	2.47	Disagree
iii	The students of Technical Education have access to good network.		12	9	2.28	Agree
iv	Poor network affects the knowledge acquisition.	2.5	10	11	1.90	Disagree
v	Poor network affects the transfer of learning.		13	8	2.47	Disagreed

Table 3 reveals that poor or inefficient network of the internet affects knowledge acquisition of students in Technical Education Department. Following the result obtained from the distributed questionnaire by different respondents, it shows that Department of Technical Education have no

efficient network for browsing. Out of 21 respondents 15 respondents are strongly agree that the Department of technical Education suffers from good network for browse, and only 6 respondents are strongly disagree with the views. Secondly, another research question was formulated. Do you suffer from network problems in the Department of Technical Education? From the result gathered 13 respondents are strongly agreed that the students of Technical Education suffer from network browse, and only 8 respondents are strongly disagree with the views. Thirdly the research made at this point is the students of Technical Education have good access to net work 8 respondents are strongly disagree that the students of Technical Education have good access to network, and only 13 respondents are strongly disagree with the views. Fourthly another question designed at this point is, poor network affects the knowledge acquisition. Out of 21 respondents 10 respondent are strongly agreed with the views and only 11 respondents are strongly disagree with the views. The fifth research question is, does poor network affect the transfer of learning. Out of 21 respondents 13 respondents are strongly agree that poor network affects transfer of learning and only 8 respondents are strongly disagree with views.

Discussion of Findings

The researcher did not only administer questionnaire but also a little face to face discussion with some of the students concerned was made. However, the findings of this study were organised and discussed in line with research question. The respondents agreed that internet assist them in their field of study about 80% to 90%, while almost 20% to 10% are the strongly disagree with the of views that internet was not assisting them in their academic field of study regularly.

Conclusion

This research paper examines the issues of accessibility and utilization of internet towards improving academic performance of N.C.E Technical students of Hassan Usman Katsina Polytechnic. The result has so far contributed immensely to the academic performance of all the tertiary institution of Katsina state, particularly the final year students in writing their research projects; they use their phones and cyber café in and outside the campus to browse information from internet.

Recommendations

This research paper recommended that, if it could be positively applied not only in Hassan Usman Katsina Polytechnic, Katsina but also other institution of higher learning will benefit from the internet. The following recommendations are therefore made:

1. Computer should be introduced to N.C.E Technical students in order to make them more exposed to computer.
2. Government should provide free internet access in the school.
3. Students should be given Assignments and require to be visiting specific website to get information.
4. Tertiary institution should make their e-library functional through connecting with internet.
5. Tertiary institution should employ qualified technical work shop attendants in order to have good maintenance.
6. The tertiary institution should provide CCTV cameras in their examination hall to reduce the rate of examination malpractice.

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THE STATUS OF CORPORATE SOCIAL RESPONSIBILITY IN PUBLIC RELATIONS: A CONTENT ANALYSIS OF PUBLISHED ARTICLES IN SCHOLARLY JOURNALS FROM 1998-2008

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Abstract

The purpose of this study was to examine the perceptions of public relations and marketing managers and administrators on corporate social responsibility (CSR) practices and strategy in the service industry in Africa. The study analyses trends and patterns in public relations literature about Corporate Social Responsibility (CSR) through a content analysis of articles published between 1998 and 2008. The current status of the literature suggests that public relations scholars have broadened their approach to CSR from one solely encompassing communication management, as proposed by Clark (2000), to one that incorporates the management function and relationship management components of contemporary public relations thinking. The findings of the literature review suggest that there are opportunities for social responsibility to be incorporated into public relations through a process approach, which would foster stronger links between organizations, stakeholders and society.

Keywords: Public Relations, Corporate Social Responsibility, Reviewed Journals

Introduction

Corporate social responsibility (CSR) is a self-regulating business model that helps a company be socially accountable to its stakeholders, the public and wider society. It can take various forms, but the two most common types of CSR are philanthropic and environmental responsibility. Philanthropic responsibility is about donating time, money or resources to worthy causes, while environmental responsibility is about reducing the damaging that affects industrial business has on the environment. (CSR) lends itself to good news stories and is a source of positive public relations (PR).

The purpose of corporate social responsibility is to give back to the community, take part in philanthropic causes, and provide positive social value. Businesses are increasingly turning to CSR to make a difference and build a positive brand around their company.

Many people think PR and corporate social responsibility is the same thing. But they're not, although naturally there is an overlap. CSR is a set of strategies that organisations use to contribute to the wellbeing of the community. While PR is how organisations tell the world about those strategies. For instance: without PR, no-one would know about Save our Environment campaign, now running for the eighth year to free cities and oceans in Nigeria of plastic water bottles. A fundamental problem in the field of corporate social responsibility (CSR) is that there is no universally accepted definition of the concept.

Bowen (1953) offered one of the earliest definitions seeing CSR as the "obligations of businessmen to pursue those policies, to make those decisions, or to follow those lines of action which are desirable in terms of the objectives and values of our society" Since then, the field has evolved assuming different names such as corporate social responsiveness (in the 1970s) and corporate social performance (in the 1980s).

This evolution also reflects an increase in awareness in important areas of action and performance that the early definitions had overlooked (Carroll, 1991). For the purposes of this study, I adopted Bowd, Harris, and Cornelissen's (2003) definition of CSR, which was derived from the views of scholars such as Carroll (1999), Wood (1991), Freeman (1984), and Friedman (1970). Bowd, Harris and Cornelissens (2003) also incorporated recent industry reports such as Commission of the European Communities (2001, 2002) and the Financial Times Top 100 Index to define the term: CSR is corporations' being held accountable by explicit or inferred social contract with internal and external stakeholders, obeying the laws and regulations of government and operating in an ethical manner which exceeds statutory requirements. CSR is great for internal PR. Employees want to feel proud of the company they work for and get job satisfaction at the end of each day. And let's face it, few things in life are as rewarding as contributing to the greater good. A company that's actively attempting to make a difference is a much more attractive proposition than one that isn't. Don't underestimate the power of CSR for retaining talent.

The Relationship Between Corporate Social Responsibility and Public Relations

Some of the world's largest and most successful businesses are incorporating good corporate citizenship into their culture. And it's paying off. They've developed solid reputations for doing good and turning their success into an opportunity to help others. Most of the Company's and Parastatals has now become household names through the intensive projection of their Corporate images, Take for example, First Bank Plc 's reputation as a caring and Philanthropic organisation for their activities like award of scholarships to deserving students and donation to charities employer or BATCO's commitment to saving the environment with their campaign of plant a tree today. This is where PR and CSR converge. A strong brand reputation is at the heart of a sound public relations strategy. And the companies that enjoy the best corporate reputations are typically those that make a commitment to social responsibility. The reasons are many: a strong reputation can help an organisation differentiate its products and services, attract talent, and mitigate risk.

Take Microsoft. Widely recognised as a 'good' company, Microsoft's environmental and social policies have not only increased the sustainability and resilience of the business, they've also played an important role in [building its positive reputation](#). People all over the world have come to associate the brand with innovative humanitarian initiatives, like Bill Gates' vaccination programme [Gavi](#). In the highly competitive tech sector, this is a great way to differentiate the brand, build a loyal customer base and attract top talent, which is exactly what Microsoft does.

CSR lends itself to good news stories and is a source of positive Public Relations (PR). Publicity can be a key part of using CSR to win contracts. People want to buy from businesses they respect. CSR can be particularly effective for targeting ethical companies, the public sector and not-for-profit organizations. But first and foremost, the role of PR in CSR should be to get customers and employees on board with the initiative and: Inspire employees to take action, and contribute or participate in the CSR initiative. Inform communities about how an organization's working to deliver well to them.

With the benefit of sound research principles and practices, the public relations professional serves as pivotal source for information about how and what to communicate to investors, the marketplace, employees, and other key stakeholders in a corporate social responsibility program. This is the time for all types of business to have CSR as the lifeblood for all their customers and employees. And an open and honest approach to corporate social responsibility, which is at the heart of your heart of your brand, is good public relations.

In 2000, Clark identified that the corporate social responsibility (CSR) literature had largely ignored the role of public relations and offered a communication management approach to maximize the relationships between organizations and stakeholders. Since the publication of that article, CSR has become an increasingly important phenomenon in business at both academic and practical levels (De Bakker, Groenewegen & Den Hond, 2005). Reinforcing Clark's (2000) conclusions about the links between public relations and CSR, recent research has found that public relations practitioners are often responsible for CSR work in organizations (ACCSR, 2007; Zhang and Swanson, 2006; Sagar & Singla, 2004). Given that public relations has a role to play in the business priority of CSR at both academic and practical levels, it is important and timely to review how the public relations literature is addressing CSR and to consider directions for future research.

The purpose of this article is two-fold. First, I examine the public relations literature related to CSR since Clark's (2000) article to identify how CSR is being treated in this domain. Second, I consider how CSR is being treated in terms of the evolving public relations theoretical agenda that has moved from a focus on communication management to a focus on relationship management. Clark's (2000) comparison of CSR and public relations identified many similarities in their evolution. The challenge for scholars is in charting its future path.

Fundamental societal changes during the 1960s and 1970s saw the practice of public relations evolve from its information dissemination origins into a discipline that was more about issue response, accountability and social responsibility as central to organization-public relationships. It was at this point that Clark (2000) stated that CSR and public relations were most similar, highlighting the fact that both public relations and CSR aim to understand their stakeholder environments in order to respond to society's demands. While Clark's (2000) discussion provided a valuable consideration of the CSR phenomena, the focus on communication management presented in 2000 retains its focus on just one aspect of contemporary public relations thinking. Seminal work on public relations as communication management was defined in the 1992 Excellence studies (Grunig, 1992).

I suggest there are three key streams in the public relations literature that are useful for considering the role of public relations in CSR. The first stream in the literature **presents public relations as a management function**, which uses the attributes of management (e.g., planning, collaborative decision making, and research) to foster the organization's ability to build mutually beneficial relationships on which the corporate vision and mission depend (Grunig, 2001). The second stream in the literature presents **public relations as communication management**, which focuses on the flow of communication between an organization and its publics to achieve effective relationships (Gruning, 1992). The third stream of literature presents **public relations as relationship management**, so that communication is a property of those relationships rather than the conduit between organizations and publics (Ferguson, 1984; Broom, Casey, & Ritchey, 1997).

While these approaches are inherently interdependent, the unit of analysis in each perspective provides a useful frame for considering public relations practices: management focuses on the planning process in the organization, communication focuses on the strategic understanding of the flow of information, and relationship management focuses on the nature of the relationship itself. As the name suggests, the communication management in CSR model put forward by Clark (2000) places a strong focus on strategically understanding stakeholders and the communication that takes

place between them and the organization. This examination of the public relations literature related to CSR seeks to build a greater understanding of this relationship.

Corporate Social Responsibility like strategic management perspectives of public relations, systems theory (von Bertalanffy, 1968) provided some foundational thinking for Preston and Post (1975) when they considered the relationship between organizations and their environment. Rather than systems being based on exchange relationships, Preston and Post (1975) argued that organizations and environments could operate as interdependent systems. These early CSR concerns revolved around the set of processes that arise when organizations and their environments interpenetrate and were focused on the secondary impacts arising from the organizational pursuit of efficient outcomes (Preston & Post, 1975).

This perspective focused on the relationships between organizations and their environments that extended beyond those that solely resulted in efficiency and exchange. The extent of the domains of these relationships were addressed by Carroll (1979), who stated that the “social responsibility of business encompasses the economic, legal, ethical, and discretionary expectations that society has of organizations at a given point of time” (Carroll, 1979, p. 500). McWilliams and Siegel (2001) focus on the intent of the actions and relationships by suggesting that CSR comprises “actions that further some social good, beyond the interests of the firm and that which is required by law” (p. 117). The domains in which these “responsible” actions take place are now widely accepted to span across economic, social and environmental dimensions (Carroll, 1979).

An important clarification that has evolved in the CSR literature is the articulation of the role of stakeholders, rather than society as a whole, in defining CSR. While Carroll (1999) included the notion of society as the interface to the organization, Whetten, Rands and Godfrey (2001) shifted the definition to include the notion of *stakeholder* in suggesting that CSR is “societal expectations of corporate behavior: a behavior that is alleged by a stakeholder to be expected by society or morally required and is therefore justifiably demanded of business” (p. 374). This configures stakeholders as the means through which society’s expectations are translated, represented and delivered to the organizational interface (De Bakker, 2005). Stakeholders are thus separated out from the broader social environment, suggesting that the interaction between organizations and stakeholders provides the operational level at which CSR is socially constructed. Such a perspective is evident in the communication management perspective presented by Clerk 2000.

One of the reasons for this shift is that stakeholders provide organizations with a range of resources that are required to conduct their business, such as capital, customers, employees, materials and legitimacy (Bailey in Deegan, 2002). This creates a mutual obligation, with stakeholders conceived as providing a “license to operate” to the organization in return for their provision of socially acceptable, or legitimate, actions (Cornelissen, 2004; Dowling & Pfeffer, 1975; Guthrie & Parker, 1989; Suchman, 1995). The result is a form of social contract that allows the organization to continue operations (Deegan, 2002; Golob & Bartlett, 2007). As such, the CSR literature articulates the outcomes and importance of these relationships between organizations and stakeholders. The focus on relationships that extend beyond exclusively financial and exchange imperatives is consistent with perspectives related to their importance in public relations literature in contributing more broadly to organizational success (e.g., Cutlip, Centre & Broom, 2006; Bruning and Ledingham, 1999). However, the CSR literature itself has limited, albeit evolving, explication of relationships between organizations and specific stakeholders. Some of the few studies have considered employees (Zappala, 2004) and nongovernment organizations

(Danastas & Gadenne, 2006; Phillips, 2005). Much of the discussion focuses on communication with stakeholders in particular contexts such as philanthropy (Sargeant & Crissman, 2006), cause-related marketing (Kropp, Holden & Lavack, 1999) and corporate social disclosure (Frost, Jones, Loftus & Laan, 2005; Golob & Bartlett, 2007; McMurtrie, 2005). This initial review of the broad CSR literature does two things. First, it reinforces the assertions made in the public relations literature by Clark (2000) that there are commonalities between public relations and CSR, and that communication management offers a perspective for furthering the role of public relations in the relationships between organizations and stakeholders. Second, it creates an opportunity to examine how the public relations literature has explained its role in the relationships between organizations and stakeholders that addresses management, communication and relationships.

Method

In order to examine the public relations literature related to CSR, Public Relations Journals were examined over a ten year period. The Journals selected were *Public Relations Review*, *Journal of Public Relations Research* and *Journal of Communication Management*, which are representative of public relations literature (Zoch, Collins & Cisco, 2007). I used the terms “public relations” and “corporate social responsibility” within Science Direct, EBSCO host, and Emerald to search the titles and abstracts in the three journals. The search produced a total of 40 articles for consideration. Of these articles, 18 were published in *Public Relations Review*, 20 were published in the *Journal of Communication Management*, and two were published in the *Journal of Public Relations Research*.

Further sorting of the articles was then conducted. First, a ten year data collection period (1998-2007) was chosen in order to capture the time period immediately surrounding Clark’s study until the present day. Further, it was apparent that there were few articles on CSR prior to that time period and the ten-year timeframe provided a concise time period to examine. Thirty-three of the articles met the timeframe criteria. Second, the articles were individually reviewed in order to determine if their content related to both public relations and corporate social responsibility. If the articles did not discuss public relations and CSR as their primary topic, they were discarded. A total of 21 articles remained and were used in the study. Initially, the 21 articles were analyzed by a simple count of the occurrence of CSR articles (1) across the various journals, (2) by year, and (3) by type of paper (conceptual or empirical). Iterative reading of the articles was then conducted in order to identify key themes within the articles as they related to central concepts in the public relations and CSR literatures. Articles could be coded by more than one theme, as the focus in this section of analysis was to understand the extent of discussion around central themes.

Findings

Description of public relations literature related to CSR from 1998 to 2007; Journals publishing work related to CSR

The largest proportion of the articles on CSR in the public relations literature were published in the *Public Relations Review*, which accounted for 10 of the 21 (48%) articles (see Table 1). The *Journal of Communication Management* also accounted for a significant number of articles, publishing a total of 9 (43%). The *Journal of Public Relations Research* contributed the remaining two articles (9%).

Table 1: Articles published on CSR

Publication	1998-2002 Number	2003-2007 Number	Total by Journal Number	Total by journal %
Public Relations Review	3	7	10	48%
Journal of Communication Management	3	6	9	43%
Journal of Public Relations Research	0	2	2	9%
TOTAL	n = 6 (28%)	n = 15 (72%)	n = 21 (100%)	100%

Increased publication of CSR articles 2002-2007

A further analysis of the articles showed that there was a marked increase in the number of articles published in the second five-year period compared to the first five-year period of the data set.

As Table 1 shows, there were only six articles related to CSR published in Public Relations Journals from 1998 to 2002. This figure rose to 15 articles between 2003 and 2007. The results suggest that CSR has been recognized by the Editors of the Public Relations Journals as being of greater importance to academics and practitioners. Capriotti and Moreno (2006) suggest that CSR has long been considered a key aspect of public relations, yet it has not become a prominent issue internationally until recently. De Bakker *et al.* (2005) agree that there has been increased practitioner attention to CSR, and this study highlights the increased attention within the academic public relation literature: 72% of CSR studies were published in the last five years.

Another factor that may account for the increased attention to CSR is the 2002 release of the Global Reporting Index (GRI), which provided an international framework for articulating and reporting on CSR practices by organizations. The release of the GRI played a significant role in institutionalizing CSR as a business concept in the international arena (Bartlett, Tywoniak & Hatcher, 2007).

Empirical Vs Conceptual Papers

The articles were then further analyzed to see whether they added an empirical or conceptual focus to CSR. It is significant to identify how many public relations studies are empirical because that indicates the amount of literature that has been supported by data, rather than the amount that seeks to expand conceptual discussion. As Table 2 shows, the majority of papers published on CSR in the public relations literature are of an empirical nature (52%), with conceptual studies accounting for slightly less than half the papers (48%). However, in the earlier years of the study (1998-2002), the ratio of conceptual to empirical papers published was 5:1. It was not until recently that the style of papers has shifted towards an empirical focus. This suggests that scholars are becoming engaged in understanding the way in which public relations and CSR operate, rather than promoting the as irrational goals of the relationship.

Table 2. Empirical vs. conceptual papers

1998-2002 Number (%) Publication	2003-2007 Number (%) Conceptual	Total Empirical	Conceptual	Empirical	Total	
Public Relations Review	n=2(20%)	n=1(10%)	n=2(20%)	n=2(20%)	n=5(50%)	10
Journal of communication Management	n=3(33%)	n=0(0%)	n=3(33%)	n=3(33%)	n=3(33%)	9
Journal of Public Relations Research	n=0(0%)	n=0(0%)	n=0(0%)	n=0(0%)	n=2(100%)	2
Total	n=5(24%)	n=1(4%)	n=5(24%)	n=5(24%)	n= 10(48%)	21

Central Themes of Public Relations Literature

Following the publication analysis, the contents of the articles in the data set (1998-2007) were categorized using the three streams previously identified: management function, communication management, and relationship management. The analysis showed that the articles did relate to each of these three streams, as depicted in Table 3 below. When classifying the articles into streams, there were a number of articles that fit within two streams. This was caused by the direct correlation between streams. For instance, some articles contained both CSR reporting (i.e., how organizations communicate) and relationship management (i.e., communication as a property of relationships), causing the article to fit within two primary streams. A total of 50 themes were identified across the 21 articles.

Table 3: Number of articles related to three approaches to public relations

Public Relations Domain	Public Relations Review	Journal of Communication Management	Journal of Public Relations Review	Total by Domain
Management Function	10	8	2	20
Communication Management	10	6	1	17
Relationship Management	6	7	0	13

Further to this, I explored how the CSR themes are dealt with in the public relations literature. This was done by reviewing the literature related to each of the three streams of public relations. This allows for consideration of how the literature related to CSR informs and is informed by these central pillars of public relations scholarship.

CSR and Public Relations as a Management Function

One of the central claims of public relations is that it is a management function (Grunig, 2001). Analysis of the CSR articles in this study showed that there were three key management themes investigated by public relations scholars: ethics, the public relations profession and public relations history. The number of articles related to each theme in each journal is presented in Table 4.

Table 4: Themes related to public relations as a management function

Public Relations Domain	Themes	Public Relations Review	Journal of Communication Management	Journal of Public Relations Review	Total by Theme	Total by Domain
Ethics	4	3	1	8	Management Function	20
Public relations profession	4	5	1	10		
History	2	2				

The management function stream accounted for 20 (40%) of the total number of themes identified in the literature, which broadly aggregate to three themes: the public relations profession, its history, and its ethics. The literature has identified public relations as a management function within the planning process in the organization. Further, research on CSR shows that public relations professionals are often responsible for CSR activities, demonstrating a direct correlation to their involvement in other themes such as ethics, CSR reporting and organization reputation. The studies on ethics confirm the claim that public relations has a responsibility to consider the ethics of the organizations. Schoenberger-Orgad and McKie (2005) found CSR in organizations to be a defensive act of self-interest and argue that there needs to be a shift in processes to ones that are proactive and move the organization away from the boardroom bottom-line. Starck and Kruckeberg (2003) reinforce this perspective and suggest that it is time for organizations to see CSR as a voluntary act of selflessness that works towards bettering society as a whole. In contrast, Munshi and Kurian (2005) argue that an organization can only truly be considered ethical if it considers its impact on all of its stakeholders, not just the ones that the organization sees as significant. While the motivations behind ethical CSR differ across the studies, there is a common agreement throughout that suggests that organizations are currently lacking a commitment to ethics in CSR (Munshi & Kurian, 2005; Starck & Kruckeberg, 2003; Schoenberger-Orgad & McKie, 2005). Munshi and Kurian (2005) reason that this is because CSR has become a communication-driven strategy that an organization can use to manipulate its image for social acceptance. However, Brown's (2008) findings suggest that CSR has evolved into a reactive marketing strategy due to scant literature on its origins. The findings of these studies raise concerns for the concept of public relations as a management function because they suggest that it is not currently fulfilling this duty. In order to be considered ethical, public relations professionals must peruse CSR on a deeper level in which initiatives expand further than image building and the commitment to CSR becomes a proactive push from within.

CSR and Public Relations as Communication Management

The communication management stream encompasses CSR reporting, new communication technologies and CSR marketing, and accounted for 17 (34%) of the 50 themes identified (see Table 5). CSR reporting was conducted in one of three ways: information dissemination, responsive approach and interactive approach. Both new communication technologies and CSR marketing were discussed as a means to promote transparency and accountability, foster communication, and build trust between an organization and its key publics.

Table 5: Table of themes related to communication management

Public Relations Domain	Themes	Public Relations Review	Journal of Communication Management	Journal of Public Relations Review	Total by Theme	Total by Domain
CSR reporting	4	5	9	Communication Management	17	
New communication technologies	4	1	5			
CSR marketing	2	1	3			

The most popular theme in the communication management stream was CSR reporting, in which nine papers were published. There were three key ways CSR reporting was approached. The first was purely as information dissemination (Golob & Bartlett, 2007; Esrock & Leichy, 1998), which suggests that CSR is essentially a communication technique. Golob & Bartlett (2007) believe that one way communication is necessary for global consistency. Conversely, Esrock and Leichy (1998) suggest that disseminating information on the internet would bypass media gatekeepers and act as an agenda setting tool.

The second way approach to CSR reporting was as a two-way communication mechanism (O'Connor, 2001; Badaracco, 1998; Capriotti & Moreno, 2006). These papers all discussed the role of the internet in CSR and public relations. They state that changing technologies have resulted in greater demand for transparency and accountability from society. By using the twoway communication approach, O'Connor (2001), Badaracco (1998), and Capriotti and Moreno (2006) suggest public relations can take advantage of the internet to improve the relationships between an organization and its stakeholders.

The third and final approach to CSR reporting, the interactive approach, was discussed with regard to stakeholder engagement theory (Bartlett, Tywoniak & Hatcher, 2007; Tench, Bowd & Jones, 2007; Sarbutts, 2003). These authors support the idea that publicity and one-way communication was effective early on to deal with stakeholder demands; however, due to changing society organizations must now engage in dialogue to meet their concerns. Bartlett, J, Tywonisk (2007) demonstrated this shift by highlight the global demand for transparency and accountability and stated that these new public relations practices (i.e., consult, negotiate and engage) were becoming a more accepted way to deal with stakeholders. Sarbutts (2003) thought that CSR can only truly produce the desired result when it “is not explicit but is there to be discovered and valued by stakeholders in their own terms” (p. 343). Likewise, Tench *and* Yeomans (2007) suggest that organizations ought to recognize stakeholder dialogue as imperative and constructive.

CSR and Public Relations as Relationship Management

Within the relationship management stream, three broad areas of reputation building, trust generation and relationship management were recognized, which encompassed the remaining 13 themes (26%) identified (see Table 6).

Table 6: Themes related to relationship management

Public Relations Domain	Themes	Public Relations Review	Journal of Communication Management	Journal of Public Relations Review	Total by Theme	Total by Domain
Reputation building	2	2	Relationship Management	13		
Trust generation	1	1				
Relationship management	6	4	10			

Using the framework of *public relations as relationship management*, professionals must foster open and frank communication, build trust, and demonstrate involvement, investment, and commitment (Ledingham & Bruning, 1998). Mishra's (2006) approach demonstrated organizational involvement in the support of the community on the organization's webpage. Mishra (2006) asserted that by transferring symbolic CSR communication efforts into a behavioral CSR strategy, an organization can engender loyalty in order to build long-term relationships with its key publics.

Capriotti and Moreno (2006) also sought benefits in approaching CSR from a relational perspective and similarly viewed corporate websites as a key channel in managing organizationpublic relationships. In contrast to Mishra (2006), Capriotti and Moreno (2006) expanded on the role of public relations to describe it as the heart of CSR, in which CSR is the organization's stated commitments (i.e., economic, social, environmental and informational) to its key publics.

Capriotti (2007) suggests that CSR is part of an organization's contract to society, in which it must contribute and collaborate in informing the community about potential health risks, in particular risks about chemical substances. This perspective of CSR echoes Ledingham and Bruning's (1998) theory because it discusses the importance of organization-public relationship dimensions (e.g., openness, trust and commitment) to maintain social legitimacy.

Sagar and Singla (2004) followed a similar pattern, discussing the importance of organization public relationship dimensions using a number of micro-level cases studies (e.g., Enron, WorldCom, Xerox and Kodak) to demonstrate how negative ramifications have lead to the erosion of trust in business globally. They state that the role of public relations is to generate trust through CSR and to utilize it as the social face that drives stakeholder relationships (Sagar & Singla, 2004). By doing so, Sagar and Singla (2004) declare that public relations consultants be serious about relationship management and bridge the gap between trust and CSR initiatives. The literature has identified that there is a need for relationship management and that management should utilize their websites to communicate strategically to key stakeholders (Mishra, 2006; Capriotti & Moreno, 2006; Capriotti, 2007; Sagar and Singla, 2004). By adopting a stakeholder engagement approach, organizations will be able to engage with key active publics in aspects of the decision-making process, engage in dialogue to gauge their opinions, perceptions and needs, and close the legitimacy gap through the formation of strategic relationships (Morsing & Schultz, 2006).

Implications for Further Research

In this study, we reviewed the public relations literature in order to understand how it has treated CSR. Within the past five years there has been increased attention to CSR, with scholars documenting the field more broadly. There is evidence that CSR is not just perceived as a form of communication management, as suggested by Clark (2000), but that scholars also consider CSR in terms of management function, communication management and relationship management. With studies showing public relations to be the main organizational practice area responsible for implementation of CSR activities, there is a need for practices to incorporate a multitude of approaches from information dissemination to relationship management. This suggests that further research to understand and guide practice is required across all three streams of public relations literature in order for organizations to engage in responsible relationships with stakeholders in general society.

The literature that discussed public relations as a management function presents a concern for the public relations discipline, as it illustrates the lack of ethics in the workplace. These critical perspectives remind us to challenge the role of public relations managers as agents of the organization, as well as acting on behalf of the interests of society more generally. Scholars who published empirical studies did so primarily by analyzing the private sector to highlight a shift in practice owing to the CSR phenomenon. This was done by considering new communication technologies as devices to facilitate the building of trust, responsiveness and ultimately social legitimacy. Such perspectives, which are central components of the relationship management framework, would likewise draw value from considering the ethics of public relations agency at a macro-level.

However, there is also an opportunity to draw on Clark (2000), because she established the similarities between public relations and CSR as processes rather than a set of activities. The process of Corporate Social Performance (Wood, 1991), as Clark (2000) argues, presents a model for the ongoing management of the relationship between organization and stakeholders that addresses both internal and external demands. Wood (1991) defines CSR as a business organization's configuration of the principles of social responsibility, processes of social responsiveness, and the policies, programs, and observable outcomes as they relate to the firm's societal relationships. The model put forward by Wood (1991) has a stronger focus on the process of managing the relationship between the organization and stakeholders in terms of organizational policies and operations. As such, Clark's (2000) communication management model provides an additional component to that perspective by presenting the machinations of the role of communication in this process. An emphasis on processes can therefore address issues about ethics and of 'greenwash' in communication activities by viewing the role of public relations and CSR as ongoing processes of negotiation between organizations, stakeholders and society.

This suggests that further work could focus on investigating the role of public relations in the process of corporate social performance. Such a perspective would accommodate public relations and CSR as a management function that seeks to guide the organization in its strategy, a communication function in creating and disseminating information about the organization and its role in society, and as a relationship management function in developing ethical, accountable and socially responsible relationships with key stakeholders.

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THE ROLE OF UNCERTAINTY REDUCTION THEORY IN AIDING INTERPERSONAL COMMUNICATION

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Abstract

Uncertainty reduction theory explains both how interpersonal communication is affected by a lack of knowledge and how people use communication to gather information. This theory was founded on the observation that initial interactions between strangers routinely involve an exchange of demographic and public information, and these interactions change in predictable ways as they progress. Rather than simply label these patterns as normative, the theory elaborates on the mechanisms that drive interpersonal communication behaviors. Interpersonal communication plays two roles within uncertainty reduction theory: communication is among the behaviors that people seek to predict or explain and (2) communication is a tool people use to gather information or form predictions and explanations. Over the years since its inception, uncertainty reduction theory has been applied to numerous communication contexts, and it has given rise to several alternative perspectives on uncertainty and communication. Thus, uncertainty reduction theory has had a major impact on the communication disciplines.

Key Words; *Uncertainty Reduction, Interpersonal Communication and Communication*

Introduction

The **uncertainty reduction theory** was developed by **Charles 'Chuck' Berger**. It states that people need to reduce uncertainty about other individuals by gaining information about them. For example, your friend, Maryam, invites you to join her and her co-workers for dinner. You know your friend spends a lot of time with her colleague, Aminu, both at and outside of work. This gives you a feeling of uncertainty. You feel a need to know more about this person. To relieve uncertainty, people often find ways to gain information about others. Depending on the situation, they may use one of three strategies: passive, active or interactive.

The **uncertainty reduction theory**, also known as **initial interaction theory**, developed in 1975 by Charles Berger and Richard Calabrese, is a communication theory from the postpositivist tradition. It is one of the few communication theories that specifically look into the initial interaction between people prior to the actual communication process. The theory asserts the notion that, when interacting, people need information about the other party in order to reduce their uncertainty. In gaining this information people are able to predict the other's behavior and resulting actions, all of which according to the theory is crucial in the development of any relationship.

Charles Berger and Richard Calabrese explain the connection between their central concept of uncertainty and seven key variables of relationship development with a series of axioms, and deduce a series of theorems accordingly. Within the theory two types of uncertainty are identified; cognitive uncertainty and behavioral uncertainty. There are three types of strategies which people may use to seek information about someone: passive, active, and interactive.

Furthermore, the initial interaction of strangers can be broken down into individual stages—the entry stage, the personal stage, and the exit stage. According to the theory, people find uncertainty in interpersonal relationships unpleasant and are motivated to reduce it through interpersonal communication.

History of Uncertainty Reduction Theory

Initially introduced in 1975 by Charles R. Berger and Richard J. Calabrese, Uncertainty Reduction Theory offered a “theoretical perspective for dealing with the initial entry stage of interpersonal interaction” in which uncertainty is common, and suggested a set of “research priorities” for future scholars to further test the theory. Within the initial entry stage of interpersonal interaction, an exchange of information regarding a person’s “sex, age, economic or social status, and other demographic” indicators typically occurs and is “controlled by communication rules and norms” (University of Twente, n.d.).

Berger and Calabrese (1975), “initially presented a series of axioms,” or universal truths that typically do not require proof to be accepted, to “describe the relationships between uncertainty and several communication factors” in dyadic exchanges (University of Twente, n.d.).

Further research did indeed answer Berger and Calabrese’s research priorities and significantly expanded Uncertainty Reduction Theory’s explanatory power in areas such as verbal and nonverbal communication, intimacy, reciprocity, and information-seeking behavior.

For example, assuming that the communicative interaction is in person and longer than a fleeting moment in a public space, Uncertainty Reduction Theory researchers suggest that people will use a “variety of sources when collecting information to reduce their uncertainty” (Floyd, 2017; Whaley and Samter, 2013).

Some of those sources may not be in the words being said, but rather in how one is saying something – as basic information is being exchanged, one may pick up on certain nonverbal cues like hand gestures, facial expressions, and accents (Floyd). In paying attention to nonverbal cues, may learn more about another individual and further alleviate uncertainty, ultimately leading to a more intimate knowledge of the other person.

Why the Uncertainty?

There are three reasons people typically feel uncertain: anticipation of prior interaction, incentive value and deviance. Let's take a look at each of the three reasons.

- **Anticipation of prior interaction:** Sometimes, though it may feel uncertain about others when you know you will see them again. For example, you may think you are going to see Musa again and want to know more about him if you continue to hang out with him.
- **Incentive value:** In other situations, though sometimes you may feel uncertain about an individual if that person has something you want. Did Hauwa mention she has a car for sale? Are you wondering what kind of car it is? How much is she asking for it? Why is she getting rid of it?
- **Deviance:** Finally, it may feel uncertain about seeing a person that acts in an unusual way.

Reasons to Reduce uncertainty

Berger, (1979) suggests that an individual will tend to actively pursue the reduction of uncertainty in an interaction if any of the three conditions are verified.

According to the theory, any single factor or all three of them combined can result in an increase in one's desire to reduce uncertainty in interpersonal interactions.

- **Anticipation of future interaction:** A future meeting is a certainty.
- **Incentive value:** They have or control something we want.
- **Deviance:** They act in a manner that is departing from accepted standards

Example: For a couple of weeks there will be a new manager in your workplace, therefore future interactions with this person is a certainty. The manager is assigning projects to the people in the Department; every project returns a different commission which will directly influence your income. Arguably, being assigned a higher paying project has a greater incentive value for anyone in the Department. The manager has a sibling in your Department, which could influence the manager's decision on project assignments.

Stages of Relational Development

Berger and Calabrese (1975) separate the initial interaction of strangers into three stages: the entry stage, the personal stage, and the exit stage. Each stage includes interactional behaviors that serve as indicators of liking and disliking. Understanding the cycle of relational development is key to studying how people seek to reduce uncertainty about others.

The entry stage: the entry stage of relational development is characterized by the use of behavioral norms. Meaning individuals begin interactions under the guidance of implicit and explicit rules and norms, such as pleasantly greeting someone or laughing at ones innocent jokes. The contents of the exchanges are often dependent on cultural norms. The level of involvement will increase as the strangers move into the second stage.

The personal stage: the personal phase occurs when strangers begin to explore one another's attitudes and beliefs. Individuals typically enter this stage after they have had several entry stage interactions with a stranger. One will probe the other for indications of their values, morals and personal issues. Emotional involvement tends to increase as disclosure increases.

The exit stage: In the exit phase, the former strangers decide whether they want to continue to develop a relationship. If there is no mutual liking, either can choose not to pursue a relationship.

Example: Rob Grace and Jason Chew Kit Tham discussed the three stages of crisis communication during the COVID-19 pandemic in the article *Adapting Uncertainty Reduction Theory for Crisis Communication: Guidelines for Technical Communicators*. In the first stage, city officials increased "the frequency of crisis communication, explaining recent events over five news conferences held during the week, and providing resources for citizens seeking information." In the second stage, the officials "recognized citizens' needs and experiences by adding a FAQs section and COVID-19 Dashboard to the city's website and by fielding citizens' questions during eight news conferences and city council sessions." In the last stage, the officials "broadcasted two news conferences and explained the roles that state and local officials would assume during the phased reopening."

Strategies for Reducing Uncertainty

People engage in passive, active, or interactive strategies to reduce uncertainty with others. Strategies as seeking information, focusing on primary goals, contingency planning, plan adaptation, accretive planning, and framing are often utilized by human communicators.

These strategies are meaningful to communication studies in a way that people's "unique capacities for forethought and planning and their ability to monitor carefully ongoing communication episodes" is valued in communicative process.

Passive strategy: According to Berger (1975), if a person were to observe another in their natural environment, intentionally unnoticeable, to gain information on another person, would be categorized as using a passive tactic for reducing uncertainties. For example, watching someone in class, restaurant, or any common area without attracting attention.

Active strategy: An active strategist would result to means of reducing uncertainties without any personal direct contact. For example, if one were to ask a friend about a particular person, or ask the particular person's friend for some information without actually confronting the person directly.

Interactive strategy: An interactive strategist would directly confront the individual and engage in some form of dialog to reduce the uncertainties between the two.

Extractive information seeking: A new strategy for reducing uncertainty was suggested in 2002 by Ramirez, Walther, Burgoon, and Sunnafrank that complements computer mediated communication and the technological advancements. Given the vast amount of information one could find about an individual via online resources a fourth uncertainty reduction strategy that uses online mediums to obtain information was labeled as extractive information seeking.

Types of Uncertainty

Based on the understanding of what brings uncertainty and how to use communication process to overcome it, let's discuss the different types of uncertainty:

1. Behavioral and
2. Cognitive

Behavioral uncertainty occurs when you are more concerned about other people's behaviors. Why do they act that way? Should you adjust how you behave around them? For example, Maryam dresses stylishly and acts a little standoffish. Are you dressed up enough to hang out with her? Should you be concerned about your actions and appearance? Behavioral uncertainty is the uncertainty about other persons' actions. It pertains to "the extent to which behavior is predictable in a given situation". Uncertainty is one motivation behind adoption of norms in most societies in which people tend to abide by, and if in initial conversations one chooses to ignore such norms there are risks of increasing behavioral uncertainty and reducing the likelihood of having future interactions. A great example of ignoring societal norms is engaging in inappropriate self-disclosure.

Cognitive uncertainty occurs when you are more concerned about what another person is thinking. Personality traits fit into this category, as well. Deb has a bubbly personality, you find yourself wondering: Is she always this happy? Cognitive uncertainty is the uncertainty about other persons' beliefs and thoughts. It pertains to the level of uncertainty associated with the cognition (beliefs and attitudes) of each other in the situation. Uncertainty is high in initial interactions because individuals are not aware of the beliefs and attitude of the other party.

Axioms

Berger and Calabrese(1975) propose a series of axioms drawn from previous research and common sense to explain the connection between their central concept of uncertainty and seven key variables of relationship development: verbal communication, nonverbal communication, information seeking, intimacy level, reciprocity, similarity, and liking. The uncertainty reduction theory uses scientific methodology and deductive reasoning to reach conclusions. This part of uncertainty reduction theory demonstrates the positivistic approach Berger and Calabrese took. The approach "advocates the methods of the natural sciences, with the goal of constructing general laws governing human interactions".

Axiom 1: Verbal communication: Given the high level of uncertainty present at the onset of the entry phase, as the amount of verbal communication between stranger's increases, the level of uncertainty for each interactant in the relationship will decrease. As uncertainty is further reduced, the amount of verbal communication will increase. It is also important to consider more recently published work by Berger, in which, he states the importance of appropriate levels of verbal communication, where too much verbal communication may lead to information seeking by the other party.

Axiom 2: Non-verbal affiliative expressiveness/warmth: Non-verbal affiliative expressiveness includes eye contact, head nods, arm gestures and physical distance between the interactants (closeness). As non-verbal affiliate expressiveness increases, uncertainty levels will decrease in an initial interaction situation. In addition, decreases in uncertainty level will cause increases in non-verbal affiliative expressiveness.

Axiom 3: Information seeking: In initial interactions, interactants are expected to engage in question asking, and the questions asked might only demand relatively short answers, for example: request for information of one's occupation, hometown, and places of prior residence and so on. High level of uncertainty cause increases in information-seeking behavior. As uncertainty levels decline, information-seeking behavior declines.

Axiom 4: Intimacy level of communication content: High levels of uncertainty in a relationship cause decreases in the intimacy level of communication content. Low levels of uncertainty produce high levels of intimacy. For example, during initial interaction, the communication content are expected to be of low intimacy level such as demographic information, rather than content of high intimacy level such as attitudes and opinions.

Axiom 5: Reciprocity: High levels of uncertainty produce high rates of reciprocity. Low levels of uncertainty produce low rates of reciprocity. Berger and Calabrese (1975) assume that the

easiest way to reduce mutual uncertainty would be to ask for and give the same kinds of information at the same rate of exchange and that as uncertainty is reduced, there is less need for symmetric exchanges of information at a rapid rate.

Axiom 6: Similarity: Similarities between persons reduce uncertainty; while dissimilarities produce increases in uncertainty. Dissimilarity between persons increased uncertainty because the number of alternative explanations for behavior also increases.

Axiom 7: Liking: Increases in uncertainty level produce decreases in liking; decreases in uncertainty produce increases in liking. A number of theorists have presented supportive evidence that there is a positive relationship between similarity and liking. In the view of Axiom 6, the tendency that people seek out similar others in order to reduce uncertainty should tend to produce liking.

Based on further research by Brashers (2001) two additional axioms were added to the theory, the 8th axiom was added by Berger and Gudykunst (1991) and the 9th axiom was suggested by Neuliep and Grohskopf (2000):

Axiom 8: Shared Networks: Shared communication networks reduce uncertainty, while lack of shared networks increases uncertainty. This axiom is based on further research done by Berger and William B. Gudykunst which pertained to relationship beyond the entry stage.

Axiom 9: Communication satisfaction: There is an inverse relationship between uncertainty and communication satisfaction. Communication satisfaction is defined as "an effective response to the accomplishment of communication goals and expectations". Suggested by James Neuliep and Erica Grohskopf (2000), this is an important axiom because it relates uncertainty to a specific communication outcome variable. **Theoretical Claims**

A core assumption of uncertainty reduction theory is that people are driven to increase the predictability of their own and their communication partner's behavior. Uncertainty reduction can be *proactive*, focused on predicting future behaviors, or *retroactive*, focused on explaining past experiences. The theory also distinguishes between *behavioral uncertainty*, which is a lack of knowledge about the behaviors that are appropriate or expected, and *cognitive uncertainty*, which involves questions about a communication partner's personal qualities.

Berger and Calabrese (1975) advanced uncertainty reduction theory as a *set of axioms* concerning the association between uncertainty and facets of interpersonal communication within initial interaction between strangers.

The axioms specified in that initial formulation were as follows: (1) As the amount of verbal communication between strangers increases, uncertainty decreases; as uncertainty is reduced, verbal communication increases; (2) As the amount of nonverbal warmth expressed between strangers increases, uncertainty decreases; as uncertainty is reduced, nonverbal expressions of warmth increase; (3) When uncertainty is high, information-seeking behavior is frequent; as uncertainty decreases, information-seeking behavior decreases; (4) When uncertainty is high, the intimacy level of communication content is low; as uncertainty decreases, the intimacy level of

communication content increases; (5) When uncertainty is high, partners are more likely to reciprocate each other's communication behaviors; as uncertainty decreases, the rate of reciprocity decreases; (6) Similarities between communication partners decrease uncertainty; dissimilarities between communication partners increase uncertainty; and (7) When uncertainty is high, liking for a communication partner is low; as uncertainty decreases, liking increases.

Assumptions

There are seven assumptions associated with the uncertainty reduction theory

1. People experience uncertainty in interpersonal settings.
2. Uncertainty is an aversive state, generating cognitive stress.
3. When strangers meet, their primary concern is to reduce their uncertainty or to increase predictability.
4. Interpersonal communication is a developmental process that occurs through stages.
5. Interpersonal communication is the primary means of uncertainty reduction.
6. The quantity and nature of information that people share can change through time.
7. It is possible to predict people's behavior in a law like fashion.

By considering all possible pair wise combinations of these seven axioms, Berger and Calabrese also offered *21 specific theorems* linking uncertainty to interpersonal communication variables and outcomes. For example, considering the first two axioms in tandem generates the prediction that amount of verbal communication and expressions of nonverbal warmth are positively correlated.

Although uncertainty reduction is taken as a necessary priority because it enables communication, Berger (1979) identified three conditions likely to increase a person's desire to reduce uncertainty. When future interaction with a communication partner is likely or expected, people should be especially motivated to gather information about that partner. In addition, the drive to reduce uncertainty should be increased if a communication partner has the ability to control the experience of rewards or costs.

A communication partner who behaves in an unusual or deviant manner may also motivate uncertainty reduction, especially if that unpredictable partner cannot be avoided.

Berger and Bradac (1982) elaborated on the methods people use to gather information about a target person. *Passive strategies* involve observing a person, preferably within situations where that person must be active or respond to the environment. *Active strategies* involve altering the physical or social context and observing a person's responses to that environment; this category also includes asking third parties for information about a target person. *Interactive strategies* involve gathering information by communicating directly with the target person.

Theorems

Berger and Calabrese formulated the following theorems deductively from their original seven axioms:

Verbal communication is positively related with nonverbal affiliative expressiveness, intimacy level, similarity, and liking, while it is negatively related with information seeking, and reciprocity.

Nonverbal affiliative expressiveness is positively related with verbal communication, intimacy level, similarity, and liking, while it is negatively related with information seeking, and reciprocity.

Information seeking is positively related with reciprocity, while it is negatively related with verbal communication, nonverbal affiliative expressiveness, intimacy level, similarity, and liking.

Intimacy level is positively related with verbal communication, nonverbal affiliative expressiveness, similarity, and liking, while it is negatively related with information seeking, and reciprocity.

Reciprocity is positively related with information seeking, while it is negatively related with verbal communication, nonverbal affiliative expressiveness, intimacy level, similarity, and liking.

Similarity is positively related with verbal communication, nonverbal affiliative expressiveness, intimacy level, and liking, while it is negatively related with information seeking, and reciprocity.

Liking is positively related with verbal communication, nonverbal affiliative expressiveness, intimacy level, and similarity, while it is negatively related with information seeking, and reciprocity.

Viewed collectively, the theorems provide a framework for examining and predicting the process of getting to know someone.

Table 1: Theorems of Uncertainty Reduction Theory

	Verbal communication	Nonverbal affiliative expressiveness	Information seeking	Intimacy level	Reciprocity	Similarity	Liking
Verbal communication		+	-	+	-	+	+
Nonverbal affiliative expressiveness	+		-	+	-	+	+
Information seeking	-	-		-	+	-	-
Intimacy level	+	+	-		-	+	+
Reciprocity	-	-	+	-		-	-
Similarity	+	+	-	+	-		+
Liking	+	+	-	+	-	+	

*Table 1 summarizes the seven axioms and their relationships as theorems

Empirical Tests

Tests of uncertainty reduction theory have addressed three general issues. One line of inquiry is focused on *uncertainty reduction over the course of developing relationships*. In general, people's confidence in their ability to predict a communication partner's attitudes and behaviors is positively correlated with various measures of attraction (Berger 1987). Research summarized by Berger (1988) also indicates that the nature of uncertainty and uncertainty reduction changes as interactions and relationships progress. Within initial interactions, partners exchange demographic information that allows them to locate each other within social and cultural realms. Whereas the questions strangers ask each other focus on acquiring demographic background details, friends ask questions that elicit more evaluative and attitudinal information. Within romantic relationships, people might employ *secret tests* or covert activities that are designed to acquire information about the state of the relationship. In these ways, uncertainty is reduced about different issues as

relationships develop. Another line of inquiry has focused on the *factors that prompt uncertainty reduction*.

A summary of this work highlights conflicting patterns of results (Berger 1997a). In studies that focused on behaviors after an initial real or hypothetical interaction, people did not increase their information-seeking efforts when they anticipated future interaction, had outcomes dependent on a partner, or the partner behaved in an unusual way. Other studies have shown that people communicating with a stranger engaged in more information seeking during the interaction when they expected future contact with that partner. Certainty is reduced about different issues as relationships develop.

A third program of research has focused more closely on the *communication behaviors that people use to gather information during face-to-face interactions*. As summarized in Berger and Kellermann (1994), the first few moments of initial interactions are dominated by questions, the majority of which solicit information about the communication partner. Another common information-gathering strategy is disclosing information to prompt a partner to make reciprocal disclosures. A third option involves putting the partner at ease to encourage him or her to share personal information. These information-seeking behaviors represent a tradeoff between the efficiency and appropriateness of uncertainty reduction efforts. At one extreme, interrogation offers an intrusive but efficient method of soliciting information from a target person.

Self-disclosure is less efficient than question asking, because communication partners have to infer that reciprocal disclosures are desirable; however, the freedom afforded to the communication target makes this strategy more socially appropriate. Finally, relaxing a conversational partner involves highly appropriate behaviors, but it is an inefficient method of gathering specific information.

Theoretical Developments

Since its debut, uncertainty reduction theory has been the subject of considerable scholarly debate. One critical question focuses on uncertainty reduction as a motivating force in interpersonal interactions. For example, Sunnafrank (1986) argued that communication in initial interactions is motivated by a desire to predict the potential rewards and costs of continued interaction, rather than a desire to reduce uncertainty. Brashers (2001) argued that people may prefer to maintain uncertainty if the information they might gain is threatening. Similarly, Baxter and Montgomery (1996) suggested that uncertainty is both desirable and undesirable in the context of ongoing personal relationships.

The central role of uncertainty in interpersonal interactions was elaborated by locating uncertainty within a plan-based model of strategic communication.

In particular, Berger (1997a, b) suggested that communication unfolds as people enact plans, which are mental representations of the steps required to achieve a goal. Plans are hierarchically organized, such that an overall strategy is broken into more specific steps that, in turn, identify specific actions.

Berger (1997a) highlighted how making sense of a communication partner's behavior requires inferences about that person's beliefs, affective states, goals, and plans. Every interaction involves incomplete knowledge about a partner's state of mind; therefore, uncertainty is always relevant to interpersonal communication. Accordingly, people cope with uncertainty by seeking to reduce it and by creating communication plans that accommodate these unknowns.

As noted by Berger (1997), uncertainty complicates planning because people lack necessary information about the context for interaction, their partner's behavior, and their own actions. By this logic, uncertainty reduction is a necessary part of forming and executing communication plans.

Applications and Extensions

Although uncertainty reduction theory was initially formulated and tested within the context of initial interactions between strangers, it has been widely applied to various communication situations. For example, uncertainty reduction theory has been used to illuminate the experiences of new employees, doctors and patients, students in a classroom setting, television viewers, computer-mediated communication partners, and members of newly formed stepfamilies.

The theory has also contributed to alternative perspectives on uncertainty and communication, such as predicted outcome value theory (Sunnafank 1986) and uncertainty management theory (Brashers 2001).

One extension of uncertainty reduction is focused on *explaining intercultural communication experiences*. According to Gudykunst (2005), people have a maximum and a minimum threshold for uncertainty and anxiety during interpersonal exchanges. When uncertainty is between the two thresholds, people feel comfortable because they have confidence in their predictions about the other person's attitudes and beliefs, but they are not overconfident. Similarly, a moderate level of anxiety keeps people engaged in an interaction, but not overwhelmed by fear.

Another extension of the theory has focused on the doubts and questions people experience within *romantic relationships*. The *relational turbulence model* specifies that changes in intimacy within romantic relationships spark relational uncertainty, defined as questions or doubts about the nature of involvement in a relationship (Solomon & Knobloch 2004).

Although relational uncertainty polarizes emotional, cognitive, and communicative reactions to relationship events, reducing uncertainty and managing those events promote intimacy between relationship partners. Scholars of interpersonal communication utilize several theories to help explain and predict human interaction.

One such theory, Uncertainty Reduction Theory, attempts to explain how human beings utilize communicative strategies to reduce uncertainty regarding other human beings. The theory suggests that human beings are uncomfortable with uncertainty and seek the means to predict the trajectory of social interactions. In attempting to reduce that uncertainty, people tend to utilize passive, active, and interactive strategies to help predict and explain someone's behavior during an interaction.

A passive strategy might resemble observing someone from a distance – say a potential romantic interest at a bar – and determining information based upon those observations. A more active strategy might resemble the act of looking someone up online to access basic information provided on someone’s social media profile. An interactive strategy, then, might resemble a face-to-face interaction, where an exchange of basic information occurs, and uncertainty is reduced through this initial exchange.

Outside the Realm of the Interpersonal

While Uncertainty Reduction Theory largely pertains to interpersonal communicative contexts, the theory can also be applied to other situations as well. Dale (2007) highlighted Uncertainty Reduction Theory’s applicability in contexts ranging from picking a new restaurant to try, where we might consult online reviews to reduce our uncertainty, to material in a class, where we might ask the professor or a classmate to clarify information, to situations where our health and wellness is in doubt and we ask doctors and nurses questions in an effort to quell the anxiety associated with uncertainty (Whaley & Samter, 2013).

In addition to other scholars, Brashers (2007) helped to further expand the scope of Uncertainty Reduction Theory outside the traditional dyadic interpersonal exchange. Now, when instructors in Introduction to Human Communication courses talk about Uncertainty Reduction Theory in class, they tend to do so in grander terms – taking humanity’s discomfort with uncertainty as a basic tenant of what it means to be human.

Challenging Uncertainty Reduction Theory

Without question, Uncertainty Reduction Theory begins to answer questions regarding motivations behind human communication and the nuances that occur within initial communicative contact. However, leading communication researchers bring to the fore cultural and other interpersonal factors that complicate Uncertainty Reduction Theory’s explanatory power. Citing Michael Sunnafrank and his *predicted outcome value theory*, Floyd (2017) maintained that we ought to “consider the merits of what we learn about other people when forming opinions of them,” and always remember that learning more information about another person does not necessarily equate to liking them more.

Indeed, Sunnafrank’s *predicted outcome value theory* “suggests that when we dislike the information we learn about others, that information can cause us to like them less, not more” (Floyd).

Additionally, cultural communicative tendencies further complicate Uncertainty Reduction Theory’s ability to explain human interaction as some cultures “accept uncertainty as a normal part of life, whereas others tend to avoid it whenever possible” (Floyd).

While Uncertainty Reduction Theory may indeed be universal to the human experience, there are some notable caveats, and researchers have recently started to take into account Western bias in discussing culture and intercultural communication.

Uncertainty Reduction Theory Today

Even with an abundance of research about and related to Uncertainty Reduction Theory, interpersonal communication scholars continue to probe its intricacies and applicability. In writing the entry about Uncertainty Reduction Theory in *The International Encyclopedia of Interpersonal Communication*, Knoblach (2015) highlighted that recently “scholars have employed the theory to illuminate interpersonal contexts as diverse as initial interaction, social exchange processes, individual differences in uncertainty, established relationships, computer mediated communication, dyadic communication within organizations, and intercultural communication.” Within those contexts, there is ample space for great scholarship and room for Uncertainty Reduction Theory to grow.

Summary

Initial Premise URT was first proposed to predict and explain initial interactions and relational development (or lack thereof) between acquaintances or strangers, based on self-disclosure Today URT is now used in research on various relationship types to explore methods to: Reduce uncertainty and increase predictability about behavior for ourselves/others in an interaction.

Uncertainty is perceived to be uncomfortable and dissonant, prompting individuals to do what is necessary in order to return to consonance? How do we cope with uncertainty with strangers or acquaintances, vs. relationships at deeper levels?

What are axioms? Tenets which reflect the connection between uncertainty and key variables (in the context of this theory)

Axiom 1: Verbal Communication As the amount of verbal comm. increases the level of uncertainty decreases, and As a result, verbal communication again increases.

Axiom 2: Nonverbal Warmth As nonverbal affiliative expressiveness increases Uncertainty levels will decrease. Decreases in uncertainty level will cause increases in nonverbal affiliative expressiveness.

Axiom 3: Information-Seeking High levels of uncertainty cause increases in information-seeking behavior. As uncertainty levels decline Information-seeking behavior decreases.

Axiom 4: Self-Disclosure High levels of uncertainty cause decreases in the intimacy level of communication content. Low levels of uncertainty produce higher levels of intimacy in the content of our communication.

Axiom 5: Reciprocity High levels of uncertainty produce high rates of reciprocity.

Low levels of uncertainty produce low levels of reciprocity.

Axiom 6: Similarity Important similarities between persons reduce uncertainty While key dissimilarities produce increases in uncertainty.

Axiom 7: Liking Increases in uncertainty level prompt decreases in liking whereas decreases in uncertainty level produce increases in liking.

Axiom 8: Shared Networks Shared communication networks reduce uncertainty But a lack of shared communication networks increases uncertainty.

Uncertainty is inevitable so what can I do??

Coping Strategies Passive; the uncertain individual observes the object of their uncertainty, watching for clues in the others reactions to stimuli (other people, events, etc.) Avoidance is a type of passive strategy

Active; the uncertain individual talks to others about the object of their uncertainty Interactive The uncertain individual poses direct questions to, and/or otherwise directly addresses, the object of their uncertainty

Uncertainty Avoidance; The degree to which members of a [co culture] feel threatened by ambiguous situations and how much they try to avoid [uncertain situations or people] How does uncertainty avoidance manifest in our verbal and nonverbal behaviors?

Lets conclude with a discussion of some of the more common arguments against URT.

Critique: Exceptions to the Rule Axioms are flawed

For example, there times when increased knowledge and proximity do not lead to increased liking, more communication, and deeper disclosures. Why?

Critique: Information-Seeking Never Stops

We seek information constantly! Therefore, according to the axiom, we should always be in a state of both certainty and uncertainty; this would be a state of persistent dissonance

Critique: Other Motivators In addition to uncertainty, what other factors drive/influence us? Anticipated future interaction Incentive value/motivation Liking/dislike others?

Critique: Too Much of a Good Thing? Too

Much vs. Too Little

Is there such a thing as too much predictability (or too little uncertainty)? Keeping Things Interesting [Introducing too much new] uncertainty in long-term relationships usually impacts negatively on the relationship (Planalp & Honeycutt, 1985)

Critique: We Allow Uncertainty; there are times when (un)consciously we allow ambiguity in our relationships? Sometimes, there are high levels of uncertainty in interactions that no one wants to reduce (Kellerman & Reynolds, 1990) Examples I dont want to know Is your room clean? When might uncertainty be positive?

Conclusion

The use of non-verbal communication tools is also essential in the reduction of uncertainty where people engage in expressive activities to reduce tension amongst them. Verbal and non-verbal

attributes are all aimed at enhancing confidence and initiating communication amid strangers. As a result, strangers disclose personal information to others and eventually share experiences as well as ideas, which will help immensely in aiding interpersonal communication.

Ambiguity reduction acts a key task in boosting effective communication (Scollo & Carbaugh, 2013). Strangers should try as much as achievable to create a calm environment through passive and active schemes in order to build self-confidence. Studies acknowledge that each person should use personal experiences and behaviors to approach another. These call for a reduction of uncertainty in a good interpersonal relations due to cultural differences as well the level of selfunderstanding exhibited.

Therefore, the strategies that persons employ to reduce as well to manage uncertainty vary across ethnic positions. For instance, it is observed that individuals from high-context cultures differ considerably from those in collectivists' cultures in that both present distinct information (Wood, 2012). Uncertainty may be minimized by using interactive communication, and attributive confidence is a logical manner to influence behavior.

Berger and Calabrese (1975) have stated uncertainty reduction leads to self-disclosure, which leads to liking and the start of some type of relationship between strangers. They also speak of an exit strategy where persons can choose to discontinue the relationship if mutual liking is not achieved (p. 100) But what of situations where people who don't like each other have no choice but to have a form of relationship (likeco- workers or classmates)? These individuals have decided they don't wish to have a personal relationship but must still interact in a professional manner. And increasing familiarity leads to more reciprocal disclosure. So my next RQ would ask (in those situations), does increased disclosure result in increased disliking? One more example of this would be some of the behavior exhibited on reality-based TV programs where people are made to co-exist or otherwise interact on a regular basis. As some in the cast get to know each other better, they sometimes develop a strong dislike for one another, which leads to the types of behavior that generates higher ratings for the program. My final RQ would be, how do people who speak none (or very little) of the same language decrease uncertainty about each other? Would non-verbal cues/expressions decrease uncertainty (smiling offering a handshake)? This situation may present itself between migrant workers (for ex ample) who don't speak the same language but must cooperate with each other to work or in their living arrangements. In this case, one intriguing answer could be with the use of technology. Language translating apparatus was once the stuff of science-fiction, but with today's computer-driven devices, we are able to cross the language barrier much easier than in the past. For example, certain Smartphone's have the capability (with the right software, or "apps") to make spoken translations between people on the fly. This may be another form of computer-mediated communication. Some more work may need to be done in order to produce the proper emphasis or syntax of a conversation.

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REPOSITIONING TAX ADMINISTRATION IN KATSINA STATE THROUGH TAXPAYER IDENTIFICATION NUMBER (TIN) AWARENESS FOR IMPROVED INTERNALLY GENERATED REVENUE

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Abstract

The study is on repositioning tax administration in Katsina State through Taxpayer Identification Number (TIN) awareness for improved internally generated revenue. Both primary and secondary data were used for the research; the primary data was collected through questionnaires designed and distributed to taxpayers/tax administrators based on purposive random sampling techniques while the secondary data was obtained from textbooks, journals, magazines, internet etc. Analysis of Variance (r3) known as ANOVA was computed using the Statistical Packages for Social Sciences (SPSS) in order to test the hypotheses of the study. It was found out that, there is low TIN awareness among taxpayers and many are suspicious about TIN policy as new trend in Nigerian tax administration and that TIN registration will definitely assist in re-instilling tax culture among taxpayers in Katsina state. It was recommended, among others that, TIN registration should be made simpler as this will facilitate tax compliance among taxpayers for increased IGR and tax administrators should embark on door to door registration of self-employed people on their different business premises.

Introduction

One of the major problems facing many states in Nigeria is their continued dependence on federal allocation which had been dwindling as a result of fall in global oil prices, added to their inability to boost their Internally Generated Revenue (IGR). The Internally Generated Revenue (IGR) of many states in Nigeria is too low due to absence of comprehensive taxpayer database and weak administrative machineries, to mention but a few. Therefore what states need to do to generate more revenue through taxes include having a comprehensive database of taxable persons and organisations, simplifying tax collection process, ensure that the collection is technologically supported and simplifying the process of getting tax certificates.

To ensure securing these tax drives, government introduce TIN, where every taxpayer gets a special identification number by the relevant tax authority and will be issued with a unique taxpayer identification card as an evidence of the uniqueness of the number. TIN will create a harmonised electronic taxpayer identification and registration system consisting of reliable and centralised information on all taxpayers in the country to aid effective tax administration process. Automated tax registration activities will widen the tax base, enhance greater compliance, proper tracking and effective collection process and at the end, it will facilitate a sustainable platform for revenue generation in Katsina state.

Taxation is one of the avenues that government generates revenues to run its day-to-day activities. Taxpayers (Individuals and Corporate bodies) are expected to fulfill this necessary obligation of paying tax to the government as it represents an important source of revenue to government of any nation.

Generally, taxation can be described as a form of levy imposed on all residents living and non-residents doing business within a tax jurisdiction. It is a civil and patriotic responsibility of citizens to pay taxes

imposed which also come to the government as income or revenue yielding device to finance the provisions of socio-economic and infrastructural amenities and also to enhance industrial efficiency.

The Nigerian tax system has undergone several reforms geared at enhancing tax collection and administration with minimal enforcement cost. Prominent among such reforms was the introduction of TIN, (Taxpayer's Identification Number) since February 2008 which is a special digits specifically designed to identify a taxpayer (individual or company) as a duly registered taxpayer in Nigeria. TIN will provide a comprehensive taxpayers' database and also offer the taxpayers ease access to information about their tax status anywhere around the world, thus avoiding incidence of double or multiple taxes, block leakages in tax collection as well as eliminate corruption in the tax system.

Objectives of the Study

This study intends to see how Taxpayer Identification Number (TIN) can help in repositioning tax administration in Katsina State for improved IGR. The specific objectives of the study are to:

- a) Use TIN Policy to make Katsina State Board of Internal Revenue more efficient and effective tax administrative machinery.
- b) Develop a platform for a unified taxpayer database, through Taxpayer Identification Number (TIN) Policy, thereby enhancing the prospects for increased Internally Generated Revenue of Katsina state.

Research Hypotheses

In view of the objectives of the study, the following hypotheses are formulated in the form of null and alternate.

H₀: There is no significant difference in the level of awareness of TIN among Taxpayers in Katsina state

H_A: There is significant difference in the level of awareness of TIN among Taxpayers in Katsina state

Methodology

The research is on repositioning tax administration in Katsina state through awareness of Taxpayer Identification Number (TIN) as a potent strategy in having comprehensive taxpayer database for improved IGR. The research covers three Local Government Councils (Dutsin-ma, Maiadua and Malumfashi) each drawn from the three Senatorial Zones and the data for the research project was obtained from both self-employed and paid employed taxpayers in the areas covered by the research as well as members of staff in Katsina state Board of Internal Revenue (BIR).

The research made use of both primary and secondary sources of data collection in obtaining the data for the research study. To this end, questionnaire was designed and used as the major technique for collecting primary data while the secondary data was obtained from textbooks, journals, magazines, internet etc. A total of one hundred and eighty (180) questionnaires were administered to both tax officials and taxpayers selected using purposive random sampling method. One hundred and fifty (150) questionnaires were returned. The Analysis of Variance (r^2) known as ANOVA was computed using the Statistical Packages for Social Sciences (SPSS) in order to test the hypotheses of the study.

Literature Review

Pritchard and Murphy (1988) opines that a tax is a payment to central government, calculated by laid down rules, for which nothing specifically usable by that taxpayer alone is transferred while Black (1990) asserts that a tax is an enforced contribution of money or other property, assessed in accordance with some reasonable rule or apportionment by authority of a sovereign state on persons or property within its jurisdiction for the purpose of defraying the public expenses. Bannock, Baxter and Davis (1998) define taxation as a compulsory transfer of money (or occasionally of goods and services) from private individuals, institutions or groups to the government. Ola (2001) views taxation to be the process or machinery by which communities or groups of persons are made to contribute some agreed amount of money for the purpose of administration and development of the society. To Adesola (1986) tax is a compulsory levy which a government imposes on its citizens to enable it to obtain the required revenue to finance its activities; it is generally considered as a civic duty. Furthermore, taxation is the process of imposing, assessing, collecting and accounting for taxes (Agbetunde, 2010).

Again, it is evident that the original concept of tax was basically to raise money to meet the expenditure needs of government. However, tax is much more than collecting revenue. It is about building accountable relationship between government and citizens; it is also about provision of social services to the people in an efficient manner. It is indeed about execution of viable projects that impact directly on the people – projects with which taxpayers can connect their tax revenue with. Unfortunately this is hardly the case in Nigeria; the infrastructures that the taxpayers are supposed to enjoy are either not there or where in existence, are in a deplorable condition. This may not be unconnected, but not limited to, inefficient and corrupt tax administration thereby leading to tax evasion and avoidance.

Reasons for Imposition of Taxes

Ariwodola (2000) opines that the primary objective and purpose of taxation in most nations of the world is essentially to generate revenue for government expenditure on social welfare such as provision of defence, law and order, health services and education. Revenue from taxation can also be spent on capital projects otherwise called capital expenditure, creating social and economic infrastructure which will improve the social life of the people.

Apart from this primary purpose of being the most potential source of revenue to government of any nation, taxation has played very prominent roles as an instrument of government's economic, social and fiscal policy. For instance, Musgrave and Musgrave (1980) posit that taxation can be extensively used in regulating the consumption pattern resulting in economic stabilization. Anti-social behaviour such as drinking of alcohol, smoking and pool betting can be controlled by imposition of higher taxes on production of such goods.

Taxation also serve as a mechanism for income and wealth distribution as it holds that tax burden should be heavier for the rich in the society than for the poor so that taxes collected are used to pay for social services for the less fortunate thereby promoting social equality (Musgrave and Musgrave 1980). Ola (2004) argued that taxation is a powerful and potential fiscal stabilizer employed by government of nations to plan development policies and according to Nightingale (2000) it is a device to induce economic development and favourable balance of payments.

It is imperative to briefly but lucidly state here that taxation is used across the globe both as revenue generation as well as fiscal policy tool which governments used in attaining economic growth, stability and development. Many countries across the globe rely heavily on tax revenue to finance their numerous developmental projects. However, the situation may not be said the same in the Nigerian context for glaring reasons which include, but not limited to, weak and corrupt tax administrative machineries, ignorance of the tax laws, non-identification and registration of the taxpayers, poor documentation and absence of comprehensive taxpayers database, multiple taxation, etc.

Interestingly and hopefully too, the new TIN programme as a tax reform strategy will address these issues, reposition, replace and reengineer the tax administration and registration processes. This will enhance voluntary compliance by taxpayers, provide comprehensive taxpayer statistics and database and also widen the revenue base of government for better planning and developmental purposes.

Taxpayer Identification Number (TIN)

The Taxpayer Identification Number (TIN) is a unique number allocated and issued to identify a person (individual or Company) as a duly registered taxpayer in Nigeria. It is to be used by that taxpayer alone. Registration for tax purposes is a legal obligation of every person who is required to pay tax in Nigeria (Femi, A. 2013).

The benefits of Tax Payer Identification Number

- 1) With a valid tax payer's identification number, the taxpayers now have ease of access to information about his tax status anywhere around the world, thus, avoiding incidence of double or multiple taxes.
- 2) Taxpayer's identification number, TIN is unique to each taxpayer in the country and may be quoted for all tax purposes nationwide. It is therefore in the interest of every Nigerian to go and get their TIN. (Femi, A. 2013).

It is pertinent to state here that pre TIN Tax administration is largely manually processed, characterized by multiple and incomplete databases, resulting in difficulty in tracking noncompliance of taxpayers with and infrastructure and technology coupled with delayed response time to tax enquiries and complaints.

Post TIN Tax administration on the other hand would be a standardized system for taxpayers' identification and registration that will harmonize taxpayer database and allow information sharing between various institutions. It will be technology based with improved infrastructure and improved response time to tax enquiries and complaints thereby facilitating taxpayer compliance.

Previous Research on TIN

Previous research has found that introduction of TIN will contribute to the total revenue of government. For example, Ezugwu & Agbaji (2014) assessed the contribution of Internally Generated Revenue (IGR) to the total tax revenue of Kogi state before the introduction of Taxpayers Identification Number (TIN) for a period of five years (2003 – 2007). They find that internally generated revenue does not contribute significantly to the total tax revenue before the

introduction of Taxpayers Identification Number (TIN) in Kogi state. They stressed that governments at all levels should collaborate and embrace the TIN programme as it will boost the internally generated revenue.

In a study on the impact of tax reform on Nigeria’s economic growth by Okafor, (2012) cited in (Dickson .E. and Rolle R. 2014) where tax reform was proxied by income tax, petroleum profit tax (PPT), value-added tax (VAT), custom and excise duties (CED) and company income tax (CIT). It was found out that tax reform can stimulate economic growth. Adereti, Sanni and Adesina (2011) cited in (Dickson .E. and Rolle R. 2014) also in a study titled “Value-Added Tax and economic Growth of Nigeria” regressed the GDP, which was a proxy for Economic Growth on Value-Added Tax (VAT) and found out that the substantial variation in Economic growth as provided by the GDP was as a result of variation in VAT revenue thus suggesting the catalytic role of tax reform to revenue generation. Similarly, Ogbonna and Appah (2012) cited in (Dickson, E. and Rolle, R. 2014) using time series analysis and employing the scope (19812007) conducted a study on the impact of tax reform on economic growth in Nigeria. The results showed that changes in all the income taxes have positive coefficient. This implies that tax reform will stimulate economic growth. These indeed suggest that, TIN as a tax reform strategy will not only transform and reposition the tax administration in Nigeria but also stimulate economic growth and development.

Discussion of Results

Here result is presented using simple percentages, tables, charts and hypotheses testing using Analysis Variance. One hundred and eighty (180) questionnaires were administered to all the respondents; however, one hundred and fifty (150) questionnaires were returned and hereby presented as below.

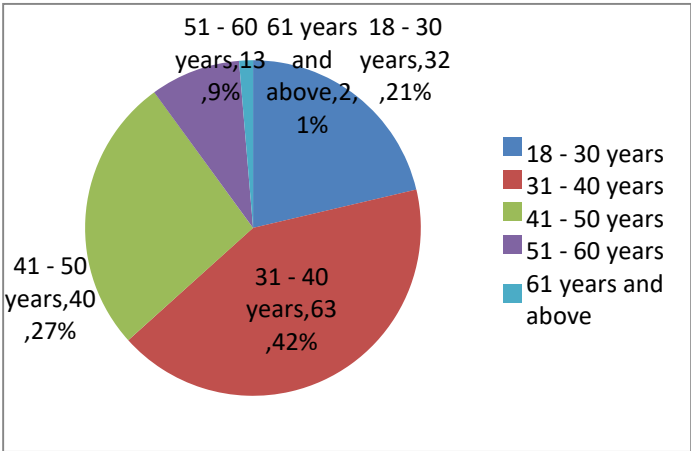


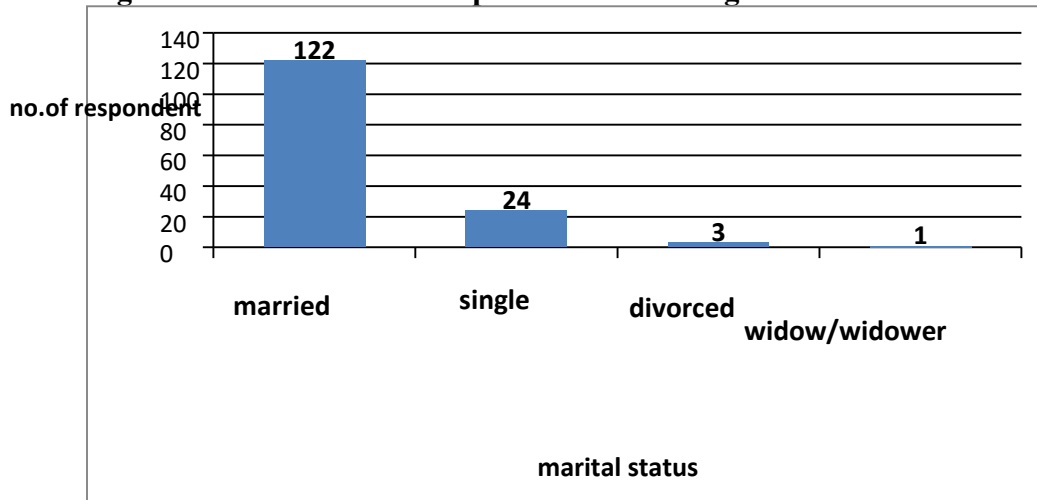
Fig 1: Age distribution of respondents.

Source: Field Survey 2022

From the figure above, 63 of the respondents representing (42%) are between 31- 40 years, 40 respondents representing (27%) are between 41 – 50 years, 32 respondents representing (21%) are

between 18 – 30 years, 13 respondents representing (9%) are between 31 – 40 years, 13 respondents representing (9%) are between 41 – 50 years, 13 respondents representing (9%) are between 51 – 60 years while 2 respondents representing 1% are between 61 years and above. The implication of this result is that the administration and collection as well as payment of tax in Katsina State are in the hands of the strong age group of the society that is between the ages of 31 to 40.

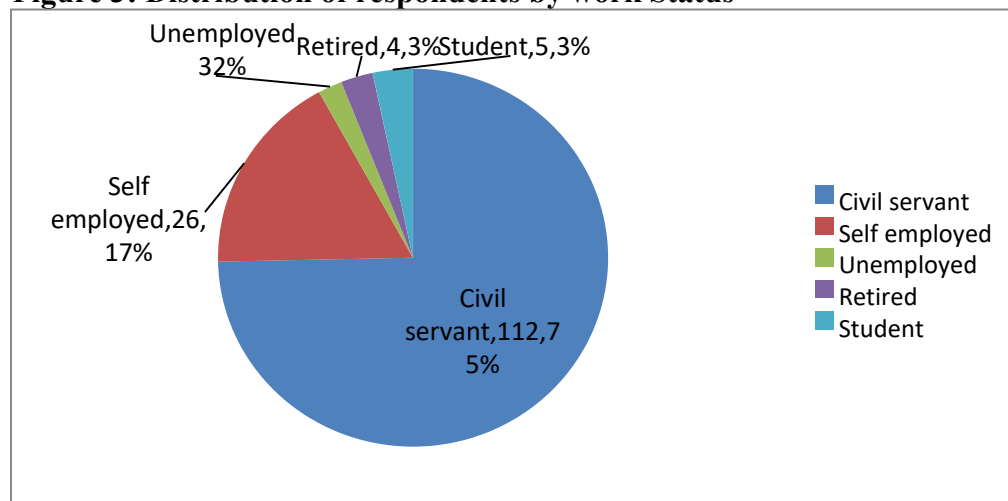
Figure 2: Distribution of respondents according to marital status.



Source: Field survey, 2022

From the figure above, 122 of the respondents representing (81%) are married, 24 respondents representing (16%) are single, 3 respondents representing (2%) are divorced while one respondent representing (1%) is a widower. The implication of this result is that administration, collection and payment of tax in Katsina state is in the hands of married people which further signify that the administration, collection and taxpayers are largely from the married people in Katsina State.

Figure 3: Distribution of respondents by work Status



Source: Field survey, 2022

From the figure above (74.7%) 112 of the respondents representing (75%) are civil servants, 26 respondents representing (17%) are self-employed, 5 respondents representing (3%) are students, 4 respondents representing (3%) are retiree while 3 respondents representing (2%) are unemployed. The implication of the result is that greater percentages of tax payers in Katsina State are civil servants which could mean PAYE is greater than other forms of taxes.

Table 1: Simplifying TIN registration for facilitation of voluntary compliance

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly disagree	7	4.7	4.7	4.7
Disagree	22	14.7	14.7	19.3
Neutral	18	12.0	12.0	31.3
Agree	91	60.7	60.7	92.0
Strongly agree	12	8.0	8.0	100.0
Total	150	100.0	100.0	

Source: Field survey, 2022

From the table above, the greater percentages (68.7%) of the respondents have agreed that making TIN registration very simple among tax payers will facilitate voluntary tax compliance. The implication of this is that the taxpayers will not encounter problem/difficulties during TIN registration and this will encourage them to get TIN registration and have TIN as a first step towards tax compliance for increased revenue.

Table 2: Facilitation of exchange of information through TIN

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly disagree	6	4.0	4.0	4.0
Disagree	12	8.0	8.0	12.0
Neutral	16	10.7	10.7	22.7
Agree	99	66.0	66.0	88.7
Strongly agree	17	11.3	11.3	100.0
Total	150	100.0	100.0	

Source: Field survey, 2022

From the table above, greater percentages (77.3%) of the respondents have agreed that the use of TIN will facilitate comprehensive data base of the taxpayers and exchange of information between government agencies whereas only 4% of the respondents have strongly disagreed. The implication of this is that through TIN, government agencies such as FIRS, SIRB etc will exchange valid required information about tax payer among themselves.

Table 3: Educate tax payers on TIN

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly disagree	8	5.3	5.3	5.3
Disagree	8	5.3	5.3	10.7
Neutral	6	4.0	4.0	14.7
Agree	89	59.3	59.3	74.0
Strongly agree	39	26.0	26.0	100.0
Total	150	100.0	100.0	

Source: Field survey, 2022

From the table above, the greater percentages (85.3%) of the respondents have agreed that the level of education of taxpayers on TIN will greatly improve their tax knowledge and will also positively change their perception and attitude to the tax system which will invariably improve the level of tax collection in the state. Kassipillai, (2003) explains that there is a direct relationship between taxpayer education and voluntary tax compliance.

Table 4: TIN as a condition for other important transactions creates TIN awareness

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly disagree	5	3.3	3.3	3.3
Disagree	15	10.0	10.0	13.3
Neutral	20	13.3	13.3	26.7
Agree	86	57.3	57.3	84.0
Strongly agree	24	16.0	16.0	100.0
Total	150	100.0	100.0	

Source: Field survey, 2022

From the table above, the greater percentages (73.3%) of the respondents have agreed that TIN is used as a condition for other transactions in Katsina State; whereas only a little percentages (3.3%) of the respondents have strongly disagreed. The implication of this result is that taxpayers in Katsina state will use TIN for tax clearance certificate or bank transactions, to obtain government loans foreign exchange, trade licenses, to register their businesses with corporate affairs commission and will also be used to get contracts from the state and local governments. A taxpayer must also obtain TIN before he enjoys the benefits of e-tax pay platform.

Table 5: TIN registration of self-employed tax payers would improve IGR of Katsina state

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly disagree	12	8.0	8.0	8.0
Disagree	20	13.3	13.3	21.3
Neutral	13	8.7	8.7	30.0
Agree	73	48.7	48.7	78.7
Strongly agree	32	21.3	21.3	100.0
Total	150	100.0	100.0	

Source: Field survey, 2022

From the table above, the greater percentage (70%) of the respondents have agreed that if selfemployed taxpayers are properly brought to the tax net through the use of TIN registration, this will increase the internally generated revenue (IGR) of the state while only the least percentage (8%) of the respondents have strongly disagreed. The implication of this result is that Katsina state government should do everything possible to facilitate TIN awareness and registration among taxpayers for greater revenue generation in the state.

Table 6: Implementing TIN will provide comprehensive taxpayer database in Katsina State

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly disagree	8	5.3	5.3	5.3
Disagree	11	7.3	7.3	12.7
Neutral	11	7.3	7.3	20.0
Agree	77	51.3	51.3	71.3
Strongly agree	43	28.7	28.7	100.0
Total	150	100.0	100.0	

Source: Field survey, 2022

From the table above it is indicated that the larger percentage (80%) of the respondents have agreed that TIN registration will ultimately assist the state government in having a comprehensive data base of all legible taxpayers in the state which will make tax evasion very difficult. This will have a positive effect of an enhanced revenue generation by the Katsina State.

Table 7: Lack of comprehensive taxpayer database has been the major problem of tax administration in Katsina state

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly disagree	8	5.3	5.3	5.3
Disagree	16	10.7	10.7	16.0
Neutral	14	9.3	9.3	25.3
Agree	90	60.0	60.0	85.3
Strongly agree	22	14.7	14.7	100.0
Total	150	100.0	100.0	

Source: Field survey, 2022

From the table above, the greater percentages (74.7%) of the respondents have agreed that the lack of comprehensive database of taxpayers in Katsina State is one of the major problems of tax administration in Katsina State. The implication of this is that the lack of database will surely give room for tax evasion.

Table 8: Paying tax is a civic responsibility to all eligible taxpayers

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly disagree	12	8.0	8.0	8.0
Disagree	8	5.3	5.3	13.3
Neutral	10	6.7	6.7	20.0
Agree	75	50.0	50.0	70.0
Strongly agree	45	30.0	30.0	100.0
Total	150	100.0	100.0	

Source: Field survey, 2022

From the table above, the greater percentages (80%) of the respondents have agreed that paying tax is a civic responsibility to all legible tax payers in Katsina State. This implies that, TIN as a potent tax administration strategy would be welcomed and accepted by the taxpayers in the state since majority of the tax payers have recognized that paying tax is but a civic responsibility to all and sundry.

Hypotheses Testing

Spearman Rank Order and Analysis of Variance (r_s) known as ANOVA was used to test the hypotheses formulated for the study. If the computed f value of r_s is greater than or equal to the critical values, the null hypothesis will be rejected but when the computed f value is less than the critical values of the r_s , the null hypothesis (H_0) will be accepted.

H_0 : There is no significant difference in the level of awareness of TIN among Taxpayers in Katsina state.

H_1 : There is significant difference in the level of awareness of TIN among Taxpayers in Katsina state.

Level of significance $\alpha = 0.05(5\%)$

Table 8: Analysis of Variance (r_s) – ANOVA

ANOVA

TIN AWARENESS

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	90.982	4	22.745	.636	.637
Within Groups	5183.178	145	35.746		
Total	5274.160	149			

Source: Field survey, 2022

$F_{cal} 0.636 < F_{tab.} = F_{4,145 0.05} = 2.434$ we therefore retain H_0

From the above table, the calculated f value is 0.64 while its critical table value at $\alpha = 0.05$ (5%) level of significance is 2.43 the calculated f values is less than the critical value of F for significance level of 0.05, therefore, we accept the null hypothesis that there is no significant difference in the level of awareness of TIN among Taxpayers in Katsina state.

Findings, Conclusion and Recommendations

The data for the study was from review of the available literature and distribution of 180 questionnaire with 39 different fields. The major findings from the study include but not limited to the following:

- There is no significant difference in the level of awareness of TIN among Taxpayers in Katsina state.
- Paying tax is a civic responsibility to all legible taxpayers
- There is low TIN awareness among taxpayers and many are suspicious about TIN Policy as new Trend in Nigerian tax administration.
- TIN-registration will definitely assist in re-instilling tax culture among tax payers in Katsina state.
- Transparency and accountability in tax collection will assist in effective tax administration in Katsina state.

Conclusions

Based on the findings of the study and the literature review the following conclusions are hereby drawn:

- The administration, collection and payment of tax in Katsina state are mostly in the hands of the strong age group of the society which range between ages of 31 to 40.
- The taxpayers who are aware of the existence of TIN among the self-employed feel that the registration is difficult and so majority of this group are not registered tax payers.
- Difficulties in TIN registration discourage many tax payers from obtaining a valid TIN; this increases the tendencies of tax payers not to reveal all taxable income to the authority so as to reduce their tax liability.
- People generally believe that money collected as tax revenue are not spent on worthy projects for the benefits of the tax payers some even feel the taxes are for the tax collectors and not for the government. This can pose challenge to the administration and implementation of any strategy including TIN by the government.
- Corruption and misappropriation of public funds has made taxpayers lose confidence in government's financial discipline and thus poor response to tax and other fiscal policies of government.
- Conclusively and in relation to the hypothesis of the research, it is evident that, there is no significant difference in the level of awareness of TIN among the taxpayers in Katsina state. This implies that the TIN registration process will have to be improved by making the process easier and accessible to the informal sector of the economy rather than concentrating mostly on civil servants.

Recommendations:

Based on the findings of this research work and the literature review, the following recommendations are hereby offered by the research.

- There should be mass public awareness campaign about the importance of TIN as a tool of tax administration so as to change the perception of taxpayers and induce voluntary compliance.
- Registration of TIN should be made simpler as this will facilitate tax compliance among taxpayers for increased IGR. Officials of the tax authority should embark on door to door registration of self-employed people on their different business premises.
- TIN registration as condition for some government transaction such as tax clearance certificates, bank transactions, foreign exchange, government loans, registration of business, transactions with Corporate Affairs Commission, etc. should be enforced and complied with. This will assist in having a comprehensive database of all eligible taxpayers which will make tax evasion difficult and will improve Internally Generated Revenue.
- The state should make efforts to review the current tax laws with transparency and accountability as the watch words in tax collection and utilization. Some viable projects carried out with the tax revenue collected should be revealed to the public so that they will have the satisfaction that the taxes being collected are effectively utilized as this communication gap increases tax evasion. In addition, the wrong perception of the public on the tax collectors will be greatly reduced/reversed and make the tax payers develop sustainable tax culture which will assist compliance.

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EFFECTS OF TRADE CREDIT MANAGEMENT ON ORGANIZATIONAL FINANCIAL PERFORMANCE

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Abstract

The aim of this research work is to appraise “the Effects of Trade Credit Management on Organizational Financial Performance”. This is because; trade credit is a short term source of finance and sometimes takes the form of bills payable. The problems observed shows that there are perceived poor level of credit management among organizations and these results to high-rate of bad debts. The objective of this research study is therefore to highlight the effects of trade credit management using four variables; accounts receivable, credit policy, credit terms, credit risk control as proxies to establish relationships with the dependent variable (organizational financial performance). Relevant literatures were reviewed. The study adopted descriptive research design, using both primary and secondary data. In treating and analyzing the data collected, regression and correlation coefficient were used to establish relationships between the variables. The findings shows that all four variables have a positive relationship with organizational financial performance; with credit policy contributing most to the dependent variable and account receivable contributing lowest to the dependent variable. It was also found that the predictor variables of credit risk control, credit policy, account receivable and credit term got variable coefficients statistically significant since their p-values are less than the common alpha level of 0.05. It is therefore recommended that; producing firms in Katsina metropolis should put in place a robust credit risk control mechanism to safeguard the interest of the company first, the firm should be reviewing from time to time its credit policy to be in line with national acceptable standards, accounts receivables should be well managed, and its audit reports and suggestions implemented. Finally, credit terms should be varied from client to client to increase sales volumes.

Keywords: Accounts Receivable, Credit Policy, Credit Terms, Credit Risk Control, Organizational Performance

Introduction

Credit management is a term used to identify accounting functions usually conducted under the umbrella of accounts receivables. Essentially, this collection of processes involves qualifying the extension of credit to a customer, monitors the reception and logging of payments on outstanding invoices, the initiation of collection procedures, and the resolution of disputes or queries regarding charges on a customer invoice. When functioning efficiently, credit management serves as an excellent way for business to remain financially stable (Mensah, 2019).

In Katsina, business enterprises today such as Sona table water, Wapa yoghurt, MaiDabino Investment etc. use trade credit as a prominent strategy in the area of marketing and financial management. Thus, trade credit is necessary in the growth of the businesses. When an organization makes sales of its products or services and does not receive cash for it, the firm is said to have granted trade credit to its customers. Trade credit thus creates accounts receivables which the firm is expected to collect in future (Kungu, Wanjau, Waititu & Gekara, 2014).

There are numerous objectives of credit management. According to Aminu (2014) credit management seeks to accelerate cash inflows, delay cash outflows, and invest excess cash to earn a return, borrow cash at the best rates available, and maintain an optimal cash level. With better credit and cash flow management practices, a business is capable of holding the right amount of cash and gives the business an opportunity to make and receive payments in time. The objective of credit management is to ensure that a business identifies its needs in good time in order to avoid cash flow crisis (Horner, 2014).

To remain profitable, businesses must ensure proper management of their receivables (Foulks, 2015). The management of receivables is a practical problem, businesses can find their liquidity under considerable strain if the levels of their accounts receivables are not properly regulated (Samuels & walkers, 2013). Thus management of accounts receivables is important, for without it; receivables will build up to excessive levels leading to declining cash flows. Poor management of receivables will definitely result into bad debts which lowers the business' profitability.

A company suffering from liquidity problem implies that the cost of obtaining funds from other sources may be high and a credit sale beyond the optimal level of credit is dangerous. On the other hand, sales level and profitability are reduced as a result of high or tight credit policy or not granting credit at all.

However, no matter how large or small an organization is and regardless of the differences in their operations or product, the effects of credit policies usually bring about similar consequences. Effects of a credit policy are either good enough to bring growth and profits or bad enough to bring declination and losses. This similarity is as a result of the aim of every manager which is to collect their receivables efficiently and effectively, thus maximizing their cash inflows (Ojeka, 2012).

This is contrary under competitive business environment where survival depends on the volume of turnover (sales) which in turn leads to trade debt accumulation. Here debtors cannot be completely avoided; it is therefore the work of the management to initiate policies concerning credit sales so that they will survive in the business environment they find themselves.

Hill, Kelly, Lockhart, and Washam (2010), studied the shareholder wealth implications of corporate trade credit policy but for as ample of large US firms. Nyawera, (2013) studied the effect of credit policy on the profitability of micro financial institutions in Kenya. The study found that there was a relationship between credit policy variables and profitability but the effect was very minimal. Empirical evidence from the study indicated that there was a negative relationship between credit terms and conditions and collection efforts which increased the profitability of the organization and also reduced the collection efforts which in turn led to decreasing default rate of the organization hence increasing the financial performance of the deposit taking micro finance institutions.

Though the impact of trade credit management on financial performance and value is practically important in daily business practice, no studies have been carried out to capture this relationship. It is against this background the researchers intend to assess the effect of trade credit management on organizational financial performance specifically in Katsina State, Nigeria.

Problem Statement

There are credit management related problems encountered by manufacturing firms, such as high rate of bad debts because some individuals and businesses take advantage of the credit extended to them finding it difficult to pay back, poor trade credit management on the part of the organization, lack of experienced staff to carry out the duty of managing debts effectively, failure of some customers to comply with the agreed terms of trade with the company upon when paying the debt, and the inability of some business policy makers to recognize how credit management improve sales performance of their firm. While the problems that affect producing firms are numerous, Abor & Quartey (2017) revealed that credit management is one that denies some producing firms cash flows to run the businesses smoothly. When businesses extend credit, the assumptions are always that the buyers will pay promptly (Muller, 2015). This, however, is not always the case.

Loveline, Uchenna, and Karubi (2014) assessed the challenges facing women-owned enterprises and noted that credit management issue was a significant challenge. From the study, the results showed that small businesses were severely hurt by the inability of some of their trade creditors to pay up their debts on time thus affected their working capital. In Nigeria, studies on credit management have only focused on the management of credit facilities provided by firms and financial institutions and working capital management practices of firms in general. None has so far examined this issue in terms of how it affects the survival of producing firms or their performance in Katsina State. This is a gap that the present study sought to bridge by analyzing how the trade credit management practices of producing firms in Katsina affects their financial performance.

Study Objectives

The study aim at examining; how trade credit management affects organizational financial performance in Katsina metropolis. Specifically, the researchers intended to identify how credit risk control, credit policy, account receivable, and credit terms affect the financial performance of organizations.

As a result of the objective above, the study provides answers to the following questions: How does Credit Risk control, Credit Policy, Account Receivable, and Credit Terms affect organizational financial performance in Katsina metropolis?

Significance of the Study

This research will be of immense benefit to the management of manufacturing companies, investors and other business organizations using credit policy. Hence, the theories and concept contained therein can be infused into their management system. It will also assist them in identifying approaches, pursuing available opportunities and reducing the probability of high value losses in the market as regards to liquidity risk. Academic Researchers will also be able to apply this research to carry out further studies in the same area by serving as a means of reference.

Literature Review

Concept of Credit Management

The main objective of trade credit is providing effective means of reducing default in collection of accounts in order to help management ascertain the profitability of the company. Thus, this collection of processes involves qualifying the extension of credit to a customer, monitors the reception and lodging of payments on outstanding invoices, the initiation of collection procedures and the resolution of disputes or queries regarding charges on a customer invoice. Many companies have been moving towards an organizational integration of the information required for credit control (Aminu, 2014).

An efficient credit management system reduces the amount of capital tied up with debtors and minimizes bad debts (Finlay, 2009). Peter (2005) conceived that there is a positive correlation between credit management and profitability. According to Dina (2007), good credit management is vital to business cash flow and ensures business operations.

Good credit management involves optimizing cash flow to ensure stability and provide maximum potential for growth. Credit arises when a firm sells its products or services on credit and does not receive cash immediately. It is an essential marketing tool, acting as a bridge for the movement of goods through production and distribution stages to customers. A firm grants trade credit to protect its sales from the competitors and to attract the potential customers to buy its products at favorable terms. Trade credit creates receivable or book debts which the firm is expected to collect in the near future. The book debts or receivable arising out of credit has three characteristics: firstly, it involves an element of risk which should be carefully analyzed. Cash sales are totally riskless, but not the credit sales as the cash payment are yet to be received.

Good credit management should be a proactive task, starting even before the sales begin. Effective credit management will protect and prosper the business with regards to profitability however; the opposite is true if ineffective credit management is practiced. Credit indeed impacts all areas of life and efficient credit management minimizes delinquency and bad debt losses.

The process of credit management begins with the assessment of the credit-worthiness of the customer base and his/her business viability. This is particularly important if the company chooses to extend some type of credit line or revolving credit to certain customers. Hence, proper credit management is setting specific criteria that a customer must meet before receiving the proposed credit arrangement. As part of the evaluation process, credit management also calls for determining the total credit line that will be extended to a given customer.

Several factors are used as part of the credit management process to evaluate and qualify a customer for the receipt of some form of commercial credit. This includes gathering data on the potential customer's current financial condition, including the current credit track record that discloses the character of a customer in meeting obligations as well as collateral value. The current ratio between income and outstanding financial obligations will also be taken into consideration.

There are five (5) basic types of credit. By understanding how each works, firms and financial institutions will be able to get the most solution for their credit recovery and avoid paying unnecessary charges.

1. **Service credit:** this is monthly payments for utilities such as telephone, gas, electricity, and water. You often have to pay a deposit, and you may pay a late charge if your payment is not on time.
2. **Credits:** Credits can be for small or large amounts and for short or long periods. Credits can be repaid in one lump sum or in several regular installment payments until the amount borrowed and the finance charges are paid in full. Moreover, credits can be secured or unsecured.
3. **Installment credit:** is described as buying on time, financing through the store or the easy payment plan. The borrower takes the goods home in exchange for a promise to pay later. Cars, major appliances, and furniture are often purchased this way. You usually sign a contract, make a down payment, and agree to pay the balance with a specified number of equal payments called installments.
4. **Credit cards:** these are issued by individual retail stores, banks, or businesses. Using a credit card can be the equivalent of an interest-free credit--if you pay for the use of it in full at the end of each month
5. **Trade credit:** this is the loan extended by one trader to another when the good and services are bought on credit. It is commonly used by business organizations as a source of short-term financing (Kuveya, 2020).

Credit Analysis

Credit analysis is the primary method in reducing the credit risk on a credit request which includes determining the financial strength of the buyers, estimating the probability of default and reducing the risk of non-payment to an acceptable level. In general, credit evaluations are based on the management subjective assessment (or judgmental assessment technique). On this note, Compton (1985) identified three distinct areas of commercial risk analysis related to the following questions:

1. What risks are inherent in the operations of the business?
2. What have managers done or failed to do in mitigating those risks?
3. How can a lender structure and control its own risks in supplying funds?

The first question forces the credit analyst to generate a list of factors that indicate what could harm a borrower's ability to repay. The second recognizes that repayment is largely a function of decisions made by a borrower. Is management aware of the important risks, and has it responded? As Tomothy (1995:665) quoted, the last question forces the analyst to specify how risks can be controlled so the firm can structure to unacceptable credit agreement.

A firm's credit analysts for instance, often use the five C's of credit to focus their analysis on the key dimensions of an applicant's creditworthiness.

Lawrence (1997:776-777), identified five C's of credit. They include; Character, Capacity, Capital, Collateral, and Conditions.

1. **Character:** The applicant's record of meeting past obligations, financial, contractual, and moral. Past payment history as well as any pending or resolved legal judgments against the applicant would be used to evaluate its character.
2. **Capacity:** The applicant's ability to repay the requested credit. Financial statement analysis, with particular emphasis on liquidity and debt ratios, is typically used to assess the applicant's capacity.
3. **Capital:** The financial strength of the applicant as reflected by its ownership position. Analysis of the applicant's debt relative to equity and its profitability ratios are frequently used to assess its capital.
4. **Collateral:** The amount of assets the applicant has available for use in securing the credit. The larger the amount of available assets, the greater the chance that a firm will recover its funds if the applicant defaults.
5. **Conditions:** The current economic and business climate as well as any unique circumstances affecting either party to the credit transaction. For example, if the firm has excess inventory of the items the applicant wishes to purchase on credit, the firm may be willing to sell on more favorable terms or to less creditworthy applicants.

The credit analyst typically gives primary attention to the first two C's-Character and Capacity because they represent the most basic requirements for extending credit to an applicant. Consideration of the last three C's-Capital, Collateral, and Conditions is important in structuring the credit management and making the final credit decision, which is affected by the credit analyst's experience and judgment.

According to Golden and Walker (1993), there are five Cs of bad debt; which represent things to guard against in order to help prevent problems. They include: Complacency, Carelessness, Communication breakdown, Contingency, and Competition.

Complacency refers to the tendency to assume that because things were good in the past they will be good in the future. Common examples are an over reliance on guarantors, reported net worth, or past credit repayment success because it's always worked out in the past.

Carelessness involves poor underwriting, typically evidenced by inadequate credit documentation, a lack of current financial information or other pertinent information in the credit files, and a lack of protective covenants in the credit agreement. Each of these makes it difficult to monitor a borrower's progress and identify problems before they are unmanageable.

Credit problems often arise when a firm's credit objectives and policies are not clearly communicated. This is **communication breakdown**. Management should articulate and enforce credit policies, and credit officers should make management aware of specific problems with the existing credits as soon as they appear.

A **contingency** refers to lenders' tendency to play down or ignore circumstances in which a credit might fall in default.

Competition involves following competitors' behavior rather than maintaining the firm's own credit standards.

Conceptual Framework and Variables Review

Conceptual Model

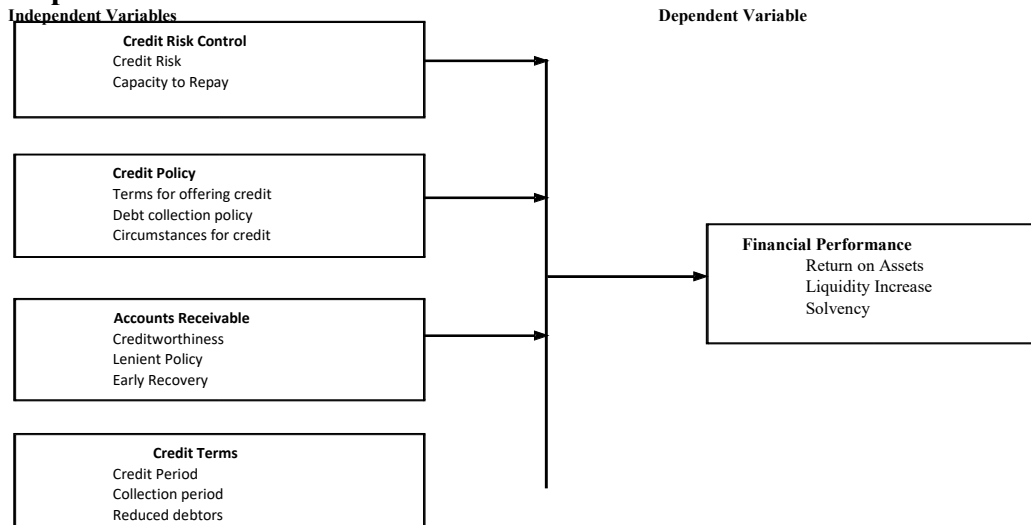


Figure 1: Conceptual Model

Source: Researchers, (2022)

This proposed model serves as a base for the research work. The main theme of the study is to examine the effects of trade credit management, which is the main independent variable and its sub variables are credit risk control, credit policy, accounts receivable, and credit terms. Organizational financial performance is the dependent variable. By using this conceptual model, different possible hypotheses have been developed to check the significant relationships between credit risk control, credit policy, accounts receivable, and credit terms and organizational financial performance. The hypotheses are as follows;

H₀₁: Credit risk control has no significant effect on organizational financial performance in Katsina metropolis

H₀₂: Credit policy has no significant effect on organizational financial performance in Katsina metropolis

H₀₃: Account receivable has no significant effect on organizational financial performance in Katsina metropolis

H₀₄: Credit terms have no significant effect on organizational financial performance in Katsina metropolis

Review of Study Variables

A. Credit Risk Controls

Credit risk refers to the probability of loss due to a borrower's failure to make payments on any type of debt. Credit risk management, meanwhile, is the practice of mitigating those losses by understanding the adequacy of manufacturing firms' capital and credit loss reserves at any given time – a process that has long been a challenge for firms and financial institutions (Afrifa, 2015).

It is the risk that may arise from borrower default on any type of debt by failing to make required payments. The risk is primarily that of the lender and includes lost value of products, disruption to cash flows, and increase in costs of collection (Aminu, 2014). Effective management of credit risk is inextricable linked to the development of producing firm's technology, which will enable to increase the speed of decision making and simultaneously reduce the cost of controlling credit risk. This requires a complete base of partners and contractors (Lapteva, 2015).

A number of ratios are available for measuring credit risk. Demirgiic-Kunt (2013) showed that the ratio of the Credit Loss reserve to Gross Credit is a measure of producing firms' quality of asset that indicates how much of the total portfolio has been provided for but not charged off. The credit portfolio risk rises when the quality is poor, and the ratio is high. There is a positive relationship between measures of risk and credit to asset in producing firms because their credits are subjected to high risk of default than other assets and are more illiquid hence in assessing the impact of credit activities on producing firms' risk, the ratio of producing and logistics firm's credits to asset ratio is used (Brewer,2015).

B. Credit Policy

Credit Policy can be viewed as written guidelines that set the terms and conditions for supplying goods on credit, customer qualification criteria, procedure for making collections, and steps to be taken in case of customer delinquency. This term can also be referred to as collection policy. It is also the guidelines that spell out how to decide which goods are sold on open account, the exact payment terms, the limits set on outstanding balances and how to deal with delinquent accounts. A Credit Policy is not something that is only operated by the Credit and Risk Department. All employees involved with customers, in any way, need to be aware of the credit policy and ensure that it is operated consistently. (Horne, 1995)

According to Kariuki (2010) to ensure regular and prompt collection a collection policy is needed which should also aim at fastening the collection from slow payers and reducing bad debt losses. Some customers are non-payers completely and others don't even put the time factor in consideration, hence the policy of collection caters for all these. He further found out that for fast turnover of working capital, keeping costs of collection and bad debts within limits and efficient maintenance of collection, prompt collection is needed.

Pandey (2015) argued that policy of collection should lay down clear methods of collection. Ineffective collection of credits depicts inefficiency in management level. Inefficiency in distributing credits to customers is therefore a policy that is determined through cost per credit asset as an average cost per credit advanced to clients in monetary terms determined by total cost and total amount of credits ratio.

Abdi (2018) examined the effects of credit policy on non-financial performance of trucking firms in Kenya. The study concluded that Information technology plays a major role in the performance of organizations in the trucking sector. This is due to the fact that, it offers to the organization, competitive and effective communication channels. Secondly, organizational structure supports, effective controls as well as, it offers a visual explanation of decision-making process and resource allocation. Thus, the organizational structure assists management in determining departments and

functions within the firm. Employee skills are a major contributor to organizations success by offering competitive and effective communication channels. This also plays a crucial role in influencing the firms' effectiveness and efficiency and, the level of competence varies with the size of the firm.

C. Account Receivables

Overdue accounts receivable is delayed payment by customers and is a potential ground for bad debts and subsequent low profitability. Although extension of Credit as stated by Gill, Dietrich, & Becker (2014) should only be on the basis of customers creditworthiness in order to minimize the level of default and bad debts, firms that use a lenient credit policy tend to give credit to customers on very liberal terms and standards that credit is granted for longer periods even to those customers whose credit worthiness is not well known (Krueger, 2015). Gitau, Micklesfield, Pettifor, and Norris (2014), state that the purpose of credit control is to ensure that trade debts are recovered early enough before they become uncollectible and a loss to the business.

In an attempt to pursue customers who do not pay on due dates, a firm may follow different procedures. Dunn (2014) state that a firm seeking to pursue overdue accounts may remind the debtor through a politely worded letter, a strongly worded letter, send a representative and eventually contemplate a legal action or writing off the debt altogether. Collection efforts may involve reminding the debtor through a demand note and if no response is received, progressive steps using tighter measures are taken (Pandey, 2014). Gitau et al., (2014) assert that a creditor should use litigation as a last resort to collect a debt that is bad and when there is a major breakdown in the repayment agreement resulting in undue delays and legal action is required to effect collection. Finally, a debt may be written off when the creditor feels that it is uncollectable. It is honorable to write off a bad debt from the books of accounts to give a true and fair view of the firm's financial position.

Mukhoma and Otieno (2016) evaluated the management of account receivable on financial performance of manufacturing firms in Nakuru County. The accounts receivable will be measured using ratios such as turnover ratio which is an accounting measure used to quantify firm's effectiveness in extending credit as well as collecting debts.

Measures such as days sales outstanding (DSO) which is a measure of the average number of days a company takes to collect revenue after a sale has been made will also be looked into to help in the management of the accounts receivable. A/R at year end as a percentage of total sales ratio computed by dividing the fiscal year end A/R balances by fiscal year net sales will also be used, accounts receivable aging schedule which is a periodic report used to determine the priorities of collection activities will also be helpful in the management of the account's receivables. Bad debt expense as a percentage of total sales ratio computed by dividing year end bad debts expenses by net sales.

D. Credit Terms

Wamasembe (2012) describes credit terms as the stipulation under which credit sales are made to clients by the firm. The stipulations involve: cash discount and credit period. An industry culture and practices can direct the credit period of a firm. The firm may widen the credit period or shorten the credit time. A firm tightens credit period by increasing sales and extension of credits hence

increase in operating profits. With increased sales and extend credit period. Kakuru (2015) found out that cash discount boosts collections due from customers and is used as a tool to increase sales. This will lead to the reduction in the level of debtors and associated costs. Terms of credit in practice includes: the time of cash discount, the net credit period and the cash discount period. Saleh and Zeitun (2017) showed that credit period is the length of time taken to approve from the applicants to the credit disbursement. Failure by customers to pay credit within a specified credit period would result to bad debts. The credit terms are measured by determining cost of bad debt arising when microfinance institutions agree to credit a sum of assets to a debtor with expected repayment in a fixed period of time.

Nyangoma (2017) carried out a study on credit terms of sales and financial performance of SMEs in Kampala, Uganda. The study was based on a correlation survey design. Primary data was collected using self-administered questionnaires issued to respondents who were owners/managers of the business. Data was analyzed using SPSS version 17. Correlation and regression analysis were carried out to establish the association among the variables. The results indicated a significant positive association among the variables of credit terms, access to credit and financial performance of SMEs. Credit terms contribute 33.1% of the variance in financial performance in SMEs. Regression analysis revealed that access to credit contributed 54.3% of the variance in financial performance of SMEs. In order to improve access to credit by SMEs, commercial banks and other lending institutions need to adjust credit terms in line with what borrowers can afford.

Financial Performance (Profitability) of Producing Firms

The sub variables applied for measure of growth for producing firms included: Sales turnover; Profit increase; Employment increase; Managerial competences and Business environment where each if was to be applied well it was to have a positive effect to the business on growth. As indicated by (Chittenden et. al., 2014), credit management of small businesses usually falls behind best practice to be applied; this implies that many manufacturing sectors has no idea of how to use credit control techniques such as; aging receivables, accounts receivable forecasting, and collection procedures as indicated by (Singh, & Pandey, 2016) using impact of working capital management in the profitability. Maina and Njuge (2011) indicated that the effects of the financial management on growth of producing firms had positive appropriate credit collection and processing controls that were to be in place that was equally important for the managements to monitor the growth of the businesses. Therefore, failure to regularly monitor any process within a business setting makes it impossible to assess their appropriateness and effectiveness (Pike, Swann, Melaine & Leng, 2013).

Profitability is the ability to make profit from all the business activities of an organization, company, firm, or an enterprise. It measures management efficiency in the use of organizational resources in adding value to the business. Profitability may be regarded as a relative term measurable in terms of profit and its relationship with other elements that can directly influence the profit. Corporate profitability is a measure of the amount by which a company's revenues exceeds its relevant expenses. It is an evaluation of management's ability to create earnings from revenue-generating bases within an organization (Ifurueze, 2013). Thus, Management is interested in measuring the operating performance in terms of profitability. Hence, a low profit margin would suggest ineffective management and investors would be hesitant to invest in the firm. Profitability

is the ability to make returns from all the business activities of an organization, company, firm, or an enterprise and the concern of every firm lies with its profitability. Profitability shows how efficiently the management can make profit by using all the resources available in the market (Nwaechina 2013). Profitability is also considered as the rate of return on investment and a widely used financial measure of performance. Hence, if there will be an unjustifiable over investment in current assets then this would negatively affect the rate of return on investment. The primary goal of credit management is to control current financial resources of a firm in such a way that a balance is reached between profitability of the firm and risk associated with that profitability, (Ifurueze 2013).

Whittington and Kurt (2017) found out that objective performance measures include indicators such as profit growth, revenue growth, return on capital employed. Financial consultants Stern Stewart and Co. created Market Value Added (MVA), a measure of the excess value a company has provided to its shareholders over the total amount of their investments (John & Morris, 2016). This ranking is based on some traditional aspects of financial performance including total returns, sales growth, profit growth, net margin, and return on equity.

Empirical Review

The importance of applying good credit management policy has grown over the past decades and many studies have been done to investigate the role and effect of the policy. Studies that have been done in credit management and profitability of a firm have contradictory result as to why firms should practice sound credit management policy. The credit mechanisms are discussed as follows: Though, trade credit policy influence on financial performance and value is practically important in daily business practice, the researcher has not been able to lay his hands on studies that have been carried out to capture adequately this relationship.

Nyawera, (2013) studied the effect of credit policy on the profitability micro financial institutions in Kenya. The study found that there was a relationship between credit policy variables and profitability but the effect was very minimal. Empirical evidence from the study indicated that there was a negative relationship between credit terms and conditions and collection efforts which increased the profitability of the organization sand also reduced the collection efforts which in turn led to decreasing default rate of the organization hence increasing the financial performance of the deposit taking micro finance institutions. The study also found that the other variables which included credit standards had a positive effect on profitability of micro finance organization. The conclusion was that implementation of a good credit policy will lead to increased financial performance of producing firms in Katsina metropolis.

Theoretical Review

The transaction theory, portfolio theory and information theory are the main theory related to this study, as the theoretical framework to analyze more on the effect of credit management on organizational financial performance, hence, the underpinning theory is the transactional cost theory.

Transactions Costs Theory

The transactional cost theory was developed by Schwartz (1974), this theory hypothesized that large organizations may have advantage over small firms in checking the real financial situation or the credit worthiness of their clients. Those organizations also have a better ability to monitor and force repayment of the credit. All these superiorities may give an organization a cost advantage when compared with small business firms.

In summary, the transaction cost theory best suit credit management of a manufacturing firm because it has supplier-client relationship, on which the supplier is the manufacturing firm granting the credit while the client it the customers or the debtors of the business. This theory has the factors which the creditor will consider before granting credit to its customers which include: the information about the customer's ability to pay on time, the nature of the firm's financial statement and it is not costly to operate. Finally, transaction cost theory encompasses all the attributes of credit management and is therefore chosen as the figure that best describe credit management.

Methodology

The researcher used descriptive research design. Descriptive study is concerned with finding out who, what, where and how much of a phenomenon, which is the concern of the study. Sekaran, (2015) observes that the goal of descriptive research is to offer the researcher a profile or describe relevant aspects of the phenomena of interest from the individual, organization, industry or other perspective. In addition, the design best fit in the ascertainment and description of characteristics of variable in this research study and allows for use of questionnaires, interviews and descriptive statistics such as frequencies and percentages. In addition, a descriptive design is appropriate since it enables the researcher to collect enough information necessary for generalization.

The population of the study consist the management and staff of some selected producing firms from various locations in Katsina metropolis. Therefore, the study targeted 140 staff of those firms. The total sample size for this study was obtained using the formulae developed by Yamane (1967) cited in Cooper and Schinder, (2013); Kothari, & Garg, 2018). The sample size was 140.

$$n = \frac{N}{1 + N(\alpha)^2}$$

Where;

n= the sample size,

N= the sample frame (population) α = the margin of error (0.05%).

$$n = 140 / 1 + 140(0.05)^2 = 103$$

The data collection instrument in this study was questionnaire. The research instrument was conveyed to the respondents through the drop and pick technique. Respondents were asked to willingly participate in the survey and fill the questionnaires that included responses on measurement of sustainable performance as well as the demographic information. The questions were directed to relevant area of the project such as; production, marketing and accounting unit of the organization.

The secondary data source was obtained from relevant Textbooks, Journals of existing literatures, Encyclopedia, and Dictionary amongst others, thus, ensuring originality.

The study expected to produce both quantitative and qualitative data. Therefore, descriptive and inferential statistics were used to analyses the data.

Multiple regression analysis (Standard) was used to explore the relationship between credit risk control, credit policy, account receivables and credit terms as the independent variables and organizational financial performance as the dependent variable. Descriptive Statistics (means and standard deviations) and inferential statistics were used to analyze data. SPSS software (version 21.0) was adopted to assist in data analysis and presentation. A series of multiple regression analysis (standard and step wise) was used because they provide estimates of net effects and explanatory power.

The multiple regression equation is as follows;

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + e$$

Where: -

Y = Represents the dependent variable, profitability of producing firms β_0 = Constant

$\beta_1, \beta_2, \beta_3, \beta_4$ = Partial regression coefficient

X_1 = Credit Risk Control

X_2 = Credit Policy

X_3 = Account Receivables X_4 =

Credit Terms ϵ = error term or stochastic term

The above proxies were adopted based on the available literatures and the objective of the study.

Data Presentation

Correlation Coefficient

Pearson correlation coefficient is used in determining the correlation between the dependent variable (organizational performance) and the independent variables (Credit risk control, Credit Policy, Account Receivables and Credit Terms). According to Sekaran, (2015), this relationship is assumed to be linear and the correlation coefficient ranges from -1.0 (perfect negative correlation) to +1.0 (perfect positive relationship). It was calculated to determine the strength of the relationship between dependent and independent variables (Kothari & Gang, 2014).

In trying to show the relationship between the study variables and their findings, the study used the Karl Pearson's coefficient of correlation (r). This is as shown in Table 1 below. According to the findings, it was clear that there was a positive correlation between the independent variables, Credit risk control, Credit Policy, Account Receivables and Credit Terms and the dependent variable (financial performance). The analysis indicates the coefficient of correlation, r equal to 0.215, 0.551, .267 and .167 for Credit risk control, Credit Policy, Account Receivables and Credit Terms respectively. This indicates positive relationship between the independent variable namely Credit risk control, Credit Policy, Account Receivables and Credit Terms and the dependent variable financial performance.

Table 1: Pearson Correlation

	Financial performance	Credit Risk Management	Credit Policy	Account Receivable	Credit Terms
Financial performance	1				
Credit Risk Management	.215*	1			
Credit Policy	.000	.007	1		
Account Receivable	.551**	.000	.000	1	
Credit Terms	.267**	.736**	.339**	.000	1
	.004	.000	.000	.000	.136
	.167**	.103	.103	.103	.172
	.000	.274*	.445**	.136	.103
	.103	.000	.000	.172	.103
		.103	.103	.103	.103

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Coefficient of Determination (R²)

To assess the research model, a confirmatory factors analysis was conducted. The four factors were then subjected to linear regression analysis in order to measure the success of the model and predict causal relationship between independent variables (Credit risk control, Credit Policy, Account Receivables and Credit Terms), and the dependent variable (financial performance).

Table 2: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.810 ^a	.656	.646	1.97094
a. Predictors: (Constant), Credit Terms, Account Receivable, Credit Policy, Credit Risk Management				

The model explains 65.6% of the variance (Adjusted R Square = 0.646) on financial performance. Clearly, there are factors other than the four proposed in this model which can be used to predict financial sustainability. However, this is still a good model as Bryman and Bell, (2018) pointed out that as much as lower value R square 0.10-0.20 is acceptable in social science research. This means that 65.6% of the relationship is explained by the identified four factors namely credit risk control, credit policy, account receivables and credit terms. The rest 34.4% is explained by other factors in the financial performance not studied in this research. In summary the four factors studied namely, credit risk control, credit policy, account receivables and credit term or determines 65.6% of the relationship while the rest 34.4% is explained or determined by other factors.

Analysis of Variance (ANOVA)

The study used ANOVA to establish the significance of the regression model. In testing the significance level, the statistical significance was considered significant if the p-value was less or equal to 0.05. The significance of the regression model was as per Table 3 below with P-value of 0.00 which is less than 0.05. This indicates that the regression model is statistically significant in predicting factors of financial performance. Basing the confidence level at 95% the analysis indicates high reliability of the results obtained. The overall ANOVA results indicates that the model was significant at $F = 14.506$, $p = 0.000$

Table 3: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig
1	Regression	225.404	4	56.351	14.506	.000 ^b
	Residual	380.693	98	3.885		
	Total	606.097	102			

a. Dependent Variable: organizational financial performance.

b. Predictors: (Constant), Credit Terms, Account Receivable, Credit Policy, Credit Risk Management

Regression Analysis

The researcher conducted a multiple regression analysis as shown in Table 1 so as to determine the relationship between organizational financial performance and the four variables investigated in this study.

The regression equation established that taking all variables into account (organizational financial performance) constant at zero, organizational financial performance will be 15.430. The findings presented also showed that taking all other independent variables at zero, a unit increase in credit risk control would lead to a 0.223 increase in the scores of organizational financial performance; a unit increase in credit policy would lead to a 0.481 increase in the scores of organizational financial performance; a unit increase in account receivables would lead to a 0.138 increase the scores of organizational financial performance and a unit increase in credit terms would lead to 0.185 increase the scores of organizational financial performance.

Table 4: Regression Coefficients

Model		Unstandardized		Standardized		t	sig.
		B	Std. Error	Beta			
1	(Constant)	15.430	1.473			10.476	.000
	Credit Risk Mgt.	.223	.099	.290		2.243	.000
	Credit Policy	.481	.085	.607		5.685	.001
	Account Receivable	.138	.104	.051		2.362	.000
	Credit Terms	.185	.105	.168		3.769	

10. Dependent Variable: organizational financial performance

11. The regression equation was:

$$Y = 15.430 + 0.223X_1 + 0.481X_2 + 0.138X_3 + 0.185X_4 \text{ Where;}$$

Y = the dependent variable (financial performance)

X_1 = Credit Risk Management, X_2 = Credit Policy, X_3 = Account Receivable and X_4 = Credit Terms

This therefore implies that all the four variables have a positive relationship with organizational financial performance, with credit policy contributing most to the dependent variable and account receivable contributing lowest to the dependent variable. From the table we can see that the predictor variables of credit risk control, credit policy, account receivable and credit term got variable coefficients statistically significant since their p-values are less than the common alpha level of 0.05.

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Conclusion

On credit risk control, the study findings rejected the null hypothesis that credit risk control has no effect on organizational financial performance. Therefore, the study concluded that credit risk control has a significant effect on organizational financial performance.

On credit policy, the study findings rejected the null hypothesis that credit policy has no significant effect on organizational financial performance. Therefore, the study concluded that credit policy has a significant effect on organizational financial performance.

On account receivables, the study findings rejected the null hypothesis that account receivable has no significant effect on organizational financial performance. Therefore, the study concluded that account receivable has a significant effect on organizational financial performance.

On credit terms, the study findings rejected the null hypothesis that credit terms have no significant effect on organizational financial performance. Therefore, the study concluded that credit terms has a significant effect on organizational financial performance.

Recommendation

Based on the research findings, the study recommend that; producing firms in Katsina metropolis should put in place a robust credit risk control mechanism to safeguard the interest of the company first, the firm should be reviewing from time to time its credit policy to be in line with national acceptable standards, accounts receivables should be well managed, and its audit reports and

suggestions implemented. Finally, credit terms should be varied from client to client to increase sales volumes.

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BANDITRY AND THE CHALLENGES OF INTERGOVERNMENTAL COORDINATION IN KATSINA STATE, NIGERIA

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Abstract

Many studies have been conducted on Banditry covering Katsina state Nigeria, but very limited focus on the intergovernmental relations and the lack of synergy between the three tiers of government tackling the problem. This study examines the relationship, effect and the extent of intergovernmental coordination applied within the study area in tackling the problem. Secondary data which includes books, journal article, newspapers, and government reports are used in gathering the data. The paper adopted a descriptive method of data analysis, while the Frustration-Aggression Theory was employed as its theoretical foundation. The study posited that inadequate security presence, the high level of poverty, illiteracy, unemployment, weaker political commitment, porosity of Nigeria's borders and arms proliferations, among others, are ultimately the fundamental causes of banditry in Katsina state. The study finds that systematic failure of state policies highlights the fundamental contributing factors which create frustration and prevalent conditions that formed and sustained banditry in Katsina state and that lack of proper coordination and absence of synergy in government policies between the levels of government makes eliminating the incessant problem futile. The study makes many recommendations to all the tiers of government, some of which includes focusing upon massive rehabilitation and reorganization of the education sector from every segment of the society. Moreover, focus should be more on effective coordination between tiers of governments and security agencies, adequate security agents' coverage, use of advance technology in interstate boundary monitoring and intelligence sharing. These are some of the measures if adopted would help in eliminating banditry in Katsina state and Nigeria at large.

Keywords: Banditry, Intergovernmental, Katsina state, Synergy, Challenges

Introduction

Many Countries in the world have struggle with banditry at one time or another. In 18th century United States of America, India, Italy, Greece have all encountered the menace at different stages of their existence. In the recent years, African Countries such as Somalia, Ethiopia, Kenya and Nigeria have all faced and are still facing the scourge. Banditry has now become the new normal in Katsina State and to a larger extent in an alarming rate in north Western Nigeria this decade. The persistence of this situation poses a serious security threat not only to this region but to Nigeria at large. The level at which bandits operate within the landscape of Katsina state have manifested to spree of kidnappings, torture of kidnapped victims, loss of lives, population displacements, loss of Livestock, disruption of arable farming and general distraction of socioeconomic activities of the area and the country at large, culminating into an atmosphere of uncertainty and a condition of fear and hopelessness to government and the citizens. The level at which these outlaws operate within many local government areas of Katsina state echoes the attention needed by all the three tiers of Local, State and Federal governments, especially, since the federal government controls the major state security institutions. This multifaceted situation of social ills of insecurity and violence in the affected states had been on for several years now, (Okoli & Ogayi 2018). This reflection is particularly relevant to the current situation in Nigeria and the instance that, where

paucity of basic facts about defense and security issues, the assessment of security matters is not primarily attractive to many scholars. Though, most of the literatures available about Nigeria's internal security are mainly official memoranda, commission reports, and individual write ups about particular situations rather than a proper articulation of internal security policy. For that purpose, the relative disregard of internal insecurity by the existing strategic analysts little has been done in Nigeria in respect of developing any meaningful state policy of internal security. Ultimately, many decades after the country's independence, the country still demands a focused internal security policy.

Common manifestations of banditry in modern-day Nigeria include cattle rustling, armed robbery, kidnapping, and criminal raids. Upon all these forms of banditry, kidnapping has been the most endemic and widespread in recent times. According to a recent report by West African Network for Peace building (WANEP), over four thousand people were kidnapped in various states of Nigeria between January and February, 2021 alone (WANEP, 2021). According to a report by Sahara Reporters (July 2021) the number of abductions in Northern Nigeria, shows that a total of 2,557 people were kidnapped in the region between January and June 2021.

With this lingering security challenges and the inability of the security agencies of the government to guarantee the safety and security of citizenry, the question that needed to be answered in particularly within the affected areas today is that "can the Governments provide this security? What effort are they making?" Apparently, the security situation in Katsina state appears or at least have remained insurmountable and many people have argued that government at all levels has not done enough by not confronting the situation head on and dealing with it decisively, others have argued that the situation has a political undertone or inclination calculated to serve certain political interests, who have been dissatisfied and disgruntled about the political manifestations in the country. According to Ladan and Matawalli, (2020), banditry in Nigeria came as a result of nearly four decades of unresolved conflicts between settled farmers and nomadic animal herding communities that wanders on the high plains of northern Nigeria. Zamfara state in the Northwestern Nigeria has been the identified as the core of the contemporary banditry in Nigeria, where most of the notorious gangsters were based and from the forests they were riding on motor cycles to other states such as Katsina, to perpetuate their acts and return to their encampments (Ladan and Matawalli), Rural communities in Katsina state have been the worst affected in comparison to those within the cities. Subsequently, the effect of banditry emerges starting with cattle rustling and kidnapping which started from July 2018 and continued to date, though it started from mainly the eight frontline Local Government Areas (LGAs) namely Jibia, Batsari, Safana, Danmusa, Kankara, Faskari, Dandume and Sabua, eventually the menace have affected the entire state. Efforts made by both federal and Katsina state governments to secure the lives and properties of citizens prove to be ineffective, as the spread of the criminality seems to be on the increase over the last decade. (Ladan, 2019). Inadequate presence of security personnel and inconsistent coordination between the regular state securities such as Police, Army and the local informal security outfits or the vigilante groups makes the efforts made to tackle the problem basically ineffective.

Consequently, the purpose of this paper is to study the existing knowledge on banditry and examining the challenges of the intergovernmental coordination between the state and federal

governments by assimilating varied analyses of the problem. The study take us into examining the concept of banditry, the causes of banditry in Nigeria, particularly in Katsina state so as to provide a contextual understanding and assessing the enormity of the problem and to highlight the defects found and the proposed solutions as it affects the study area. This is followed by an assessment of the interconnection between governments and the security environment on the evaluation of the security situation and its implications for citizens' wellbeing and development in Katsina state. Finally, in reasoning with the continuous call on everyone by government, to contribute against the incessant banditry in Nigeria, the paper proposes certain recommendations that could assist in managing the security challenges in Katsina state and by extension the country at large.

Problem Statement

There have been many scholarly works on banditry in Nigeria and particularly in the contemporary Northern Nigeria. Governments especially the federal which is constitutionally the mandated tier of government in safeguarding the well-being of the people have been struggling with the problem for many years now. At the state level, Katsina state is among the worst affected by the criminal activities of bandits in Nigeria. The constitutional provision that gives Federal Government absolute control of the military, the police and all other security agencies in the country created a vacuum in terms of utilization of these agencies at the different levels of government and thus a lack of coordination and synergy between the policy makers at the different levels of government. The absence of synergy between the Federal Government that control the security establishments and Katsina state government and the entire affected local government authorities that are directly consumed but the problem, makes it almost impossible to eliminate banditry in the state. At the early stage of banditry in Katsina state the Federal Government directed its military to forcefully Crush the bandits in their locations while at the same time states government adopted different softer approach of engaging the Bandits through negotiation and offering them amnesty and money to desist from their criminality. These divergent approaches from the two levels of government have greatly hampered the effort of eliminating the problem while it was at its preliminary stage.

Research Objectives

- I. To ascertain the degree of intergovernmental relationship between the state and the Federal governments on tackling Banditry in Katsina state.
- II. To examine the effect of coordination between the tiers of government on Banditry in Katsina state.
- III. To evaluate the extent of the Governments' commitments towards eliminating Banditry in Katsina state.
- IV. To proffer solutions to the problem of banditry in Katsina state.

Conceptual Framework

The concept banditry refers to occurrence or prevalence of armed robbery or violent crime, which involves the use of force or threat to intimidate a person or a group with the intent to rob, rape or kill, rural armed banditry or rural banditry on the other hand portrays the environmental layout of the banditry. Okoli and Okpaleke (2014) describe banditry as armed violence perpetuated by criminal gangs and opportunists in the country side and borderlines of the country which is mostly planned and perpetrated in the forest and villages closer to the forests. Banditry to Okoli (2019)

refers to the armed violence driven principally by the criminal intent to steal and plunder. It is often encouraged by the pursuit for financial accumulation and the zeal to have self-satisfaction. The victims of banditry are usually individuals and communities with any measurable material possessions. Some of the most common examples of banditry in areas of Katsina state include armed robbery, kidnapping for ransom, cattle rustling and sporadic attacks on towns, villages, roads and rural markets.

Beyond the shores of Africa, organized banditry has prevailed in places like Latin America where it is often implicated in the quagmire of drug cartels and drug wars. In the Far East, banditry has been an outright phenomenon of border criminal activity. The manifestation of banditry is not peculiar to Nigeria. In effect, the phenomenon has been an important facet of the national security debacle in the vulnerable countries of Sahel, Sahara and sub-Saharan regions of Africa. It has also been prevalent in the agrarian sector of Sweden within the continental belt of Europe (FAO 2009). The common tendency of banditry across these regions is its seeming devious and predatory trends, which has made its occurrence obstinate in many cases.

Contemporarily, Onwuzuruigbo (2020) posits that many African countries have been inhabited with all sorts of criminalities such as insurrections, clashes between herders and farmers, terrorism, and banditry mainly because of the expanse of uninhabited forests and corresponding porosity of borders which have been badly mismanaged. He further emphasized that weak government policies have contributed to the unmanaged spaces that currently provide hideouts for the bandits in the northern parts of the country. Existing literatures on banditry in Nigeria have provided evidence that linked this menace to the forest areas. Humphrey (2006) is of the opinion that the inadequacies of government security coverage to protect the forests areas make the environment conducive for all types of criminal activities.

Common manifestations of banditry in contemporary Nigeria is seen through the cattle rustling, armed robbery, kidnapping, and criminal raids. Of all these patterns of banditry, kidnapping has been the most endemic and widespread in recent times, particularly in the northwestern states of Nigeria. Although kidnapping has been prevalent in the various parts of Nigeria, it has been most endemic in northwestern Nigeria, Katsina state included. In that context, it has cunningly crossed with insurgency to further worsen the security crisis in the country. Scholarly accounts have it that the phenomenon predated Nigeria's emergence as a political entity. In this regard, Jaafar (2018) opines that there were recorded instances of banditry in the colonial Nigeria "as far back as the 1930s. However, according to Bagu and Smith (2017) the modern transformation of banditry must be understood against the backdrop of the prevailing national security discourse in Nigeria. Clique of criminals, youth often from farming and herding communities and local brigands take advantage of growing insecurity, fear and recurring attacks to loot and kidnap victims in the villages, highway robbery, and rustle cattle for personal gain. Both locals from farming and herding communities suffer from this banditry.

Apart from the attendant deaths and material destruction, the crisis has engendered frosty intergroup relations in the affected areas. A case in point is the Habe-Fulde (Hausa-Fulani) tension in Zamfara and environs (Bagu and Smith). The crisis has also led to declining rural productivity in many parts of the focal region, leading to aggravated rural poverty and destitution. So far, the

response of the government towards addressing the crisis has been overly situational and combatant. The military-style response has consisted of strategic patrol and surveillance, armed reconnaissance, as well as coordinated air raids at the various flashpoints. Rather than mitigating the situation, the military operations have significantly led to the dispersal of the criminal gangs in multiple locations within the North West. Consequently, states such as Katsina, Sokoto and Kebbi, which were hitherto scantily affected by the scourge, have overtime been inundated by incidents.

While it is advisable to continue with the military campaign against the bandits, the most imperative for the government at all levels is to devise an effective means of subverting the prevailing social ecology of rural banditry in the focal region. This would include, among other things, a meticulous effort at policing the scope of forested landscapes of the region, regulation of trans-border activities at the frontiers, proper harnessing the nomadic and mining occupation of the region and controlling the spate of arms proliferation in the area. In other words, there is a need to undo the existent drivers and contours of banditry in the Nigeria's North West region through a competent security strategy that prioritizes proper coordination between levels of government and security agencies. In addition, this strategy must identify and prioritize the need to systematically untangle and negate the entirety of socio-structural and existential dynamics that drive and sustain the occurrence of banditry in the areas.

Theoretical framework

The study is anchored on frustration aggression theory which is also known as frustration hypothesis. The advocates of this concept, found in Dollard, Doob, Miller, Mowrer, and Sears (1939) posited that “the manifestation of aggressive behavior always presupposes the existence of frustration and, inversely, that the existence of frustration always leads to some form of aggression.” and the theory was further developed by Neal Miller in 1941 and Leonard Berkowitz in 1961. Consequently, frustration is described as an event instead of an emotional state. The arguable benefit of characterizing frustration through observable qualities of events or environmental characteristics is that it allows description and testing of its causal effects, such as those on aggression, objectively instead of relying on subjective self-reported introspection. This basic yet somewhat counterintuitive ascertainment is important as it is also implied in later modifications and reformulations of the frustration aggression proposition. The theory advocates that aggression is the outcome of frustrating or blocking an individual's attempt to achieve a goal (Breuer & Elson, 2017). Banditry is a product of aggressive behavior which results from problems such as poverty, unemployment and illiteracy among others.

To critique the assertion of this theory, the claim that occurrence of aggressive behavior always deduces the presence of frustration proposes that aggression does not happen without any form of preceding frustration, and the assertion that frustration “always leads to some form of aggression” infers that aggression is a certain product of any kind of frustration. The theory is applicable to the study because, banditry in Nigeria and particularly in Katsina state has resulted in injustice, unemployment, poverty, disruption of education, peaceful coexistence; displacement and general hardship which has undermine societal development.

The Scourge of Banditry Challenges in Katsina state

The trend of banditry in Katsina state and to a larger extent Nigeria has been gradually attracting scholarly attention among academics. Despite the prevalence of this criminality Nigeria is experiencing and the increasing trend of these criminal activities going on in many parts of the state and the sub region in the country there was expected scholarly void to be filled before now. Even though, tackling any kind of insecurity in the home front is the standard of a country's defense, in Nigeria it has received only a marginal treatment in strategic literature. Emphasis has always been on insurgencies in other parts of the country like the militancy in the Niger delta and more recent, the Boko Haram in the Northeast. This predisposition is reflected not only in the rarity of scholarly works devoted to these uprisings, but also in the area of resource provisions, where the armed forces consistently get the major share of the security budget while the Nigeria police force which is most suitable in tackling criminality and the general internal insecurity, and who are in charge of the nation's internal security have been left ill-equipped to face the challenge. The growing menace of this banditry have led to the destruction of thousands loses in lives and properties; displacement of people from their communities; and a growing numbers of widows, and orphans, who now reside in many established Internally Displaced Persons (IDPs) camps (both officially and unofficially), across major towns and the various local government headquarters in Katsina and other northwestern states of the country. The cumulative effects of the banditry have over the years heavily burdened both farmers and pastoral communities across different areas of the states (Mustapha, 2019). Many of them abandoned their means of livelihood for fear of their lives and migrate to other places. As this menace ravages communities of Katsina state, farmers, especially in rural communities, are fleeing their farms. Cattle herders are also affected by criminal cattle rustling all across the state, which used to be the predominant crime in rural Katsina, subsequently kidnapping has taken the center stage and disrupted farming and pastoral activities. Many farmers falls victims to either being kidnapped for ransom or killed on their farms. Many have also abandoned their farms because of incessant attacks by bandits on their communities.

In a cross section of investigation by this research from many parts of the affected arrears of Katsina state, some farmers confirmed that their only means of livelihood; farming, has been made worthless by the unrealistic levies forced on them by the criminals. Some of the communities were also forced to strike a deal with the bandits at the expense of their valuables and liberties. Irrespective of the agreements made between the bandits and certain communities, the bandits usually broke the deal and attacked the villages and kidnap their victims indiscriminately, forcing the locals to abandon their crops on the farm prior to harvest and run for their lives. At a time Katsina state government takes drastic measures and convinces some of the bandits to come to the table with them, many of them obliged, but ultimately the policy failed fundamentally because of the uncompromising nature of the criminals. After the breaking of the so-called amnesty truce the bandits went back full force with their heinous activities. As recent as the year 2020, Katsina state government acknowledge that banditry has heavily affected farming activities as observed a record 5,884 abandoned farmlands covering over 58,330 hectares was recorded within that year alone. There were also 590 cases of kidnapping while 159,613 cattle were rustled. It is heartbreaking that official record showed that 226,650 farmers in the state were affected by the activities of bandits that year (Abdullahi, 2021).

It is very pertinent to note that all through this, no compensation was made to the farmers affected and none is forth coming today. Although the greatest asset to the farmers is their farmlands and

that is what they need, the government, in the eyes of its people was more lenient to the bandits than their victims. To them the government failed to neither stop the banditry nor aid the victims instead, it gives the bandits the incentives to continue by the terms of the amnesty program. The atrocities of bandits have forced hundreds of people to leave their communities in search of safety in towns across the state. As the attacks intensified, urban communities in Katsina are bulging with displaced people as several Internally Displaced People (IDP) camps were created all across. Many victims fled their homes after bandits attacked their communities, burnt their houses and stole their livestock. But most of the communities were deserted because people got tired of the threat of impending attacks and decided to run for safety according to a report of the International Organization for Migration (IOM, 2021).

The United Nations High Commission for Refugees (UNHCR) put the number of people displaced in Katsina State at 80,115 as at October 2020. (UNHCR, 2020). Katsina metropolis over time has admitted influx of internally displaced persons (IDPs), most of whom have decided never to go back to their localities because of the fear of the consequences. The trend of this migration continues despite warnings by sociologists and security experts alike, of the danger the displaced persons face or constitute in their host societies. The IDPs prefer to live the lives of refugees with all the lack of social support from their host communities in the metropolis rather than face the dangers of living in their unsecured localities.

Another area that has been affected by banditry in Katsina state is the social services sector, particularly the education and healthcare system sectors. Boarding schools in Katsina state were in the midst of the quagmire. When the secondary school in Kankara was hit and scores of children were kidnapped, the state government was forced to adopt drastic measures that affected the educational policies in the state. The desire to avoid strife and its attendant consequences has led to the rolling back of education and healthcare policies in the state. State Governments' allocations that would have been committed to providing social services have instead been diverted to responding to the security challenges (ICG, 2020).

Banditry has become a harsh reality in today's Nigerian state and societies (Adegoke, 2009). The terror spawned by banditry in Katsina state has prompted peoples' displacement, delay and even frustrate resettlement in many different parts of the state. Banditry has become so widespread and has denied the Nigerian state and citizens its respected image to prosper (Dami, 2021). The level of banditry in Nigeria especially in the north has been on the increase since 2014 (Dami). Banditry in Nigeria and by implication, Katsina state has defied all peaceful means directed at resolving it thereby casting the country and particularly Katsina state in bad light that her security architecture is made ineffective (Oyinloye, 2020). Banditry has caused many forced migrations, which has in turn destroyed families, disrupted economic activities and destabilize social development, in fact banditry in particularly the northern section of Nigeria has to an extent escalate the level of internal security threats, and the breakdown of law and order in an otherwise peaceful country.

Critical Intergovernmental Responses

The government's response to the security threat in Nigeria from the beginning has been rather slow and largely reactive, but subsequently grew as the menace increased. The Governments especially at the Federal and State levels have adopted certain policies that initially brought some

degree of peace and security in the State with the state government's initiated amnesty program or peace deal with the bandits. The part of the amnesty arrangement was for the government to release the detained armed bandits in the custody of security operatives that were not already convicted and the rehabilitation of rural infrastructure and social services. While on the bandits' side, they should be committed to lay down their arms and cease from attacking and kidnapping people for ransom.

However, within short time the deal was broken and the menace re-appeared again with a more dangerous antecedent than before, which involved more kidnappings of people for ransom and callous attacks on rural communities that forces most of them to run away for safety to their local government headquarters and the State capital. The tenacity of this insecurity manifest by the unrelenting killing, rape and abductions of innocent citizens has sometimes sparked protests in some LGAs and many media outlets across the state which has further increased the level of tension and fear in the State (Ladan, 2019). A reason attributed to the failure of the peace deal was indicated upon the fact that Government of Katsina State lacked adequate knowledge of the armed bandits' organizational structure, operational strategies, and leadership.

By September 2019, when bandit's attacks in many rural areas became rampant, the Katsina State Government initiated round of negotiations with the bandits led by the State Governor himself, to convince the bandits embrace peaceful resolutions to the problem. When the lack of synergy between the governments became apparent and the amnesty program became untenable the state government requested from the federal government to deploy the Nigerian Security and Civil Defense Corps (NSCDC) agro-rangers corps unit to the state, like it did to Borno state to provide security cover to rural farmers, for their safety in carryout their farming activities. However, the response was grossly inadequate from the federal government, there were several attempts to dismantle the bandits through many joint police and military operations that cordoned and engaged clusters of bandits in gun battles across different locations in the forest hideouts, aerial attacks by the Nigerian Air force was also carried out, strategic military attacks against the bandits where camps were sporadically attacked while many victims were rescued. In the month of June 2020, several bandits were killed while others were arrested with caches of weapons which are also destroyed or confiscated by the military. (Ladan & Matawalli, 2020). The Nigerian Army have been launching many operations against the bandits specifically involving new operational vehicles and weapons that have positively responded in raiding the forest hideouts of the bandits all across the state. The operations succeeded in killing scores of bandits, rescued many kidnapped victims, arrested some of the bandits' informers, and recovered hundredth of livestock. At the Local government Levels, vigilante groups continuously assist in many combats against bandits at different parts of the forest and often serves as the first vanguards against the bandits in different areas of the state with the logistic help of various local government councils.

Other strategy adopted taken by the state government came on the 2nd of July 2020 where the State Government goes spiritual by organizing prayer sessions involving over 200 people mostly Qur'anic reciters in a mosque to seek for divine intervention against the incessant trend of banditry in Katsina state. The State Governor himself has attended the occasion with other top government officials. The same process was repeated again later in the month of August 2020 by local government councils at the various local government headquarters in the state.

Conclusion

Banditry in particularly in Katsina state and Nigeria in general is a complicated situation involving an interconnection of motives, interests and actors. Unscrupulous elements and organized criminals have taken to banditry as a means of stealthy occupation. This category of terrorism and insurgencies has been resorted to as both a means of making scheme for obtaining weapons as well as further operations strategy for forcible bargaining by the bandits across the study area. Concomitantly, the situation is boosted into a complex security setup characterized by immoral opportunism in the technique of criminality unknown prior to this time in this section of the country. Kidnapping has been the most prevalent and daring challenge in the contemporary banditry problem in Katsina state and Nigeria at large. Kidnapping for ransom thrives in Nigeria because of the substantial incentives and opportunity is ripe in the country. Within the diminishing of guarantees in security and safeguard of law and order in the country, the criminal elements have resorted to the lucrative venture of banditry especially kidnapping for ransom as an occupational means, often in advancement of a certain cause. The advent of kidnapping and payment of ransom provides the material incentive for its sustainability. This serves as the motivating factor for the criminals, and other surreptitious collaborators to actuate kidnappings with impunity.

The incidence of kidnapping in Katsina state and to a larger extent, northern Nigeria has been complicated by the involvement of bandits' informants who are leaving in the midst of the victims. The bandits often operating in implied conceptual and tactical collaboration with insurgents such as Boko Haram have evolved a certain criminal political economy by which they promote and sustained their subversive trends. The current dimensions of proliferation of small arms, insurgency, terrorism, kidnapping and even the advent of new techniques of financial crimes in Nigeria could not have been precisely anticipated some years back. Definitely newer capabilities and criminal tactics will keep emerging and now that we are faced with the reality of these security challenges. The lack of synergy of government policies and improper coordination of strategy has hampered the control of the menace. New security policies, strategies and discipline within the framework of intergovernmental coordination must be absorbed to actually have a chance of tackling the problem. To change the situation, there are a lot of things our governments and official security agencies should correct.

Recommendations:

Plugging any opportunities of sustaining all forms of banditry especially kidnapping, which happened to be the most enticing to the criminals and destroying its reward system, as well as ensuring deterrence of its committal through stringent laws and all sorts of sanctioning to the perpetrators would go a long way in bringing about the desired solution. Apparently the paper recommends that:

1. Backing the law against payment of ransom should be strengthened and possibly criminalized, so as to discourage the reward system of the criminals.
2. The Nigerian government should embark on modernizing the police force through retraining, deployment of manpower and new technology, operational strategies and structural procedures.
3. Intelligence assets and gathering needs to be overhauled by the Federal government to enhance their duties.

4. There is need for the three tiers of governments to collaborate with established religious and traditional institutions as well as relevant civil society organizations to build community resilience against criminality in the region.
5. All tiers of government should invest adequate resources towards provision of basic education and infrastructure to reduce the high rate of illiteracy amongst especially the young people.
6. Employment opportunities, be it in the formal or informal, public or private should also be created for the youths to take them off delinquencies, special focus on small and medium scale industry that would attract them. Such can provide solutions to both the short term longstanding fundamental challenges shaped by poverty.
7. The Federal, State and Local Governments including the communities should have more coordinated efforts through direct contact and synergy in policies towards eliminating banditry in all affected areas.
8. Community policing should also be encouraged in especially areas where there are limited formal security presence to curb the surge of banditry in the affected areas.

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