

**COMPETENCY NEEDS OF EXTENSION AGENTS FOR
EFFECTIVE JOB PERFORMANCE IN THE SOUTH
EASTERN NIGERIA**

BY

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October, 2017.

CERTIFICATION

This is to certify that this thesis has been read and approved as meeting the requirement of Agricultural Extension and Rural Development, University of Ilorin, Nigeria, for the Award of Doctor of Philosophy (Ph.D) degree in Agricultural Extension and Rural Development.

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DEDICATION

This thesis is dedicated to the glory of the Lord, Father, Son, and Holy Spirit and my late beloved parents

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DECLARATION

I, UZOECHI, Richard Onyekachi, a Ph.D student in the department of Agricultural Extension and Rural Development University of Ilorin hereby declare that this thesis entitled “competency needs of extension agents for effective job performance in the south eastern Nigeria” submitted by me is based on my actual and original work. Any material obtained from other sources or work done by any other persons or institutions has been duly acknowledged. In addition, the research has been approved by the university of Ilorin ethical Committee

ACKNOWLEDGEMENT

I return to GOD Almighty all the honours, praises and adorations. For the Almighty GOD is our LORD evermore and forever, He will be our guide, for now even until death. In any case, we will favour the LORD from this forward and for evermore. Acclaim the LORD. So be it. I am greatly indebted to many people for their contributions, supports, prayers, encouragements and assistance towards the successful completion of this work.

I sincerely express my profound appreciation and unalloyed gratitude to my supervisor Prof. Israel Ogunlade, for his unrelenting efforts in form of constant guidance, assistance, advice and encouragement with which this work is done

Also worthy of note for support and inspiration are the following: Dr. R. S Adisa, the head of Department, Dr. Mrs Aderinoye Abdulwahab, the coordinator of the Post Graduate Programme in the Department. I also appreciate the contribution, material support and suggestion for improvement of this thesis of Professor Oluwasegun Adetokunbo Adekunl, Dr. F. O. Ladipo, Dr. G. B. Adesiji, Dr. M. B. Matanmi, Dr. Olufemi Bolarin, Dr. L. L. Adefalu, Dr. Mrs. Adebayo, Dr. Mrs K.F. Omotosho Dr. A. K Daudu, Dr. Mrs A.O Kayode, Mr Sogo Olorunfemi, Mrs, A. Adesuyi Mr. M.O Eguwrube and all my colleagues with whom I shared my academic issues relating to this work.

I jump at the chance to put into record the unfathomable help, consolation and academic material help of Professor Noah Yusuf of the Department of Sociology, Professor U.B. Eke of the Department of Chemistry, Dr. K. Adeyemi, Dr. Mrs Izuogu and many others God have used in this category to accomplish this work.

I appreciate the assistance of friends and staff of Agricultural development programs of Ebonyi, Imo, Abia, Enugu and Anambra states for their favourable response. Worthy of notes are Mr. & Mrs. D. Okoli, Major U. D Uzonnaike, Rev. Fr. Micheal Uzoagba for their encouragement during the time.

I personally appreciate the goodwill, support and assistance my siblings: Paul Uzoechi, Ugochukwu Uzoechi, Nnkechi Ole, Prisca Nwachukwu, Chibueze Uzoechi, Onyebuchi Uzoechi, Lizzy, and Prince Odinaka.

Thanks and God bless you all.

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ABSTRACT

Agricultural productions as well as farmers' productivity anywhere in the world are largely dependent on a functional agricultural extension service. However, the agricultural extension agencies in Nigeria are faced by a number of problems including poor training of extension personnel which consequently makes extension service delivery to be rather ineffective. This study therefore determined the competency needs of Extension Agents (EAs) for effective job performance in the South Eastern Nigeria. The objectives were to: (i) describe the socio-economic characteristics of agricultural extension agents; (ii) investigate the level of competencies of extension agents; (iii) determine the

effective educational delivery method to develop competencies; (iv) determine the level of job performance of extension agents; and (v) identify the constraints to the acquisition of needed competencies by the EAs.

A simple random sampling procedure was used to select 70% of the total numbers of EAs (442) from each state to give a total sample size of 308 respondents. However, 283 copies of the questionnaire were found suitable for use in the analysis. Data were collected through a structured questionnaire; a self rating scale was used to rate competency levels of extension agents while respondent's job performance levels were rated by their immediate supervisors. Data were analyzed using frequency counts, percentages, mean ratings, and standard deviations. Multiple Linear Regression Analysis was used to determine relationship between competencies of extension agents on job performance.

The findings of the study were that:

- i. majority of the respondents were married (83.4%), 46.3% were within the age bracket of 41-50 years of age, female (53.7%), all literate (100%);
- ii. respondents possessed high level of competency in programme planning($\bar{x}$ =3.59), teaching/communication($\bar{x}$ =3.56), evaluation($\bar{x}$ =3.55), leadership($\bar{x}$ =3.43) human relations competency ($\bar{x}$ =3.38), and technical/subject matter expertise competency ($\bar{x}$ =3.48) but low in computer knowledge and skills ($\bar{x}$ =1.63);
- iii. training workshops in small groups (49.8%), large groups (30.9%), and printed and electronic learning materials (12.3%) were the most effective educational delivery methods to acquire desired competencies;
- iv. majority of the respondents (66.8%) had moderate level of job performance, 22.2% had high level, while 11.0% had low level;
- v. lack of funding ($\bar{x}$ =4.05) was identified as the most important constraint for acquiring competencies, while lack of credible information ($\bar{x}$ =3.38) was the least; and
- vi. result of Multiple Linear Regression Analysis showed that: subject matter/technical expertise (t =1.963, p = 0.045), programme evaluation (t =9.232, p = 0.001), and computer knowledge and skills (t =2.058, p = 0.041) had significant effect for effective job performance, while programme planning (t =.926, p = .355) and teaching methods (t = 1.769, p =.078) were not significant.

The study concluded that subject matter/technical expertise, computer knowledge and skills, and program evaluation were competency needs for effective job performance of EAs. Other areas of competency such as programme planning and teaching methods were not highly required. The study therefore recommended that training for extension agents in the study area should focus on, subject matter/technical expertise, computer knowledge and skills, and programme evaluation competencies.

Word Count: 495

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

In an effort to transform the subsistence agriculture to an innovative, commercially oriented and modern agricultural sector, the training of field extension workers takes an important place. Agricultural extension has been associated with the transfer of innovation from the rural research centres to the rural communities, (Ogunlade, Oladele and Agboga, 2006). The transfer of technology aims at effective communication of research results to clients and development of clients' capacity and potential through educational activities (Tiraieyari, et al, 2010). Agricultural Extension is expected to foster a sustainable and dynamic approach to agricultural development and which has remained of great concern to the government and priority for discourse in policy arena (Agwu, et al, 2008).

It is the realization of this fact that has made successive Nigerian governments, to make efforts towards raising the productivity of agriculture and income level of rural people. The country has therefore, over the years, tried many Agricultural Extension Projects which include Agricultural Development Project (ADP).

Agricultural Development Project was initiated in 1975 at the pilot project level, the success of which resulted in many agricultural projects which prominently include the statewide project. The statewide ADPs are extension of the enclave projects to other Local Government Areas (LGA) covered by the initial ADPs. Presently, all the states in the country are involved in the nationwide ADP. Agricultural Development Program (ADP) focuses on rural integrated development strategy for agricultural and rural development. The establishment of these statewide ADPs raised the hope of farmers in government genuine commitment to the elimination of the social, political and economic problems that kept them in a cycle of poverty (Akinbode, 1989).

The Agricultural Development Programs (ADPs) are as of now in charge of carrying out the main part of rural extension programs in all the states of Nigeria and as well the Federal Capital Territory, Abuja. The ADPs are designed to improve the agricultural productivity, income, and also, the standard of living of the small scale farmers who are the centre-piece of all agricultural growth efforts in Nigeria (Asiabaka, 1991; Madukwe and Obibuaku, 1991; FGN, 1997). Akinsorotan and Adah (1997) reported that the success of ADPs depend on a large scale implementation of enhanced agricultural technologies by rural farmers and excellent performance of frontline extension agents, so as to, extension agents (EAs), block extension agents (BEAs) and block extension supervisors (BESs), saddled with this responsibility.

Since its foundation, ADP has been included with rural farmers to enable them to enhance the quality and amount of their agricultural produce and the capacity to self-development. The

strengths of ADP are its ability to transmit research based information and the involvement of its clients in determining, planning, and implementing programs that meet their needs. The extension services system has always been linked to a two-way process of technology transfer. The exchange of innovation from the research institute to the client has been a noteworthy test for extension specialists as new learning and advances are produced every day. Extension agents' inability to demonstrate the linkage between the economic value and production advantages of new technology is a common factor that has hindered the adaptation of new agricultural technology (Barao, 1992).

Attention to the competency needs and performance of extension agents highlights the relevance of their knowledge, skills and orientations, which agricultural educators and employers assume necessary. Competencies, for example, knowledge of the organization, program evaluation, program planning, demonstrable skill, human relations, teaching methods and leadership have been found as criteria utilized as a part of the choice, in training and selection of extension workers in developing nations like Nigeria. Technical skills of an extension worker involve not only the knowledge of the discipline, but also the ability to impact that knowledge to farmers. As Spencer and Spencer (1993) stated that, competence is the characteristic of an individual that is related to criterion-referenced successful or better-quality performance in a job position.

Over the most recent two decades, ADP has encountered major transformational changes as far as projects, accounts, and staff. The rapidly globalizing economy and increasingly complex clients have created major concerns and shifting priorities for ADP. Regardless of priorities, the feasibility of the agricultural extension activities significantly relies ahead with delivery approach and effective dissemination of information of by the frontline extension workers. It is the competencies of an extension worker that determines the level of their job performance.

As indicated by Dhanakumars (2001) and Linder (2001), work execution and expansion skills are emphatically related. Ogunlade et al., (2011) reported that there is a critical positive connection between human asset administration, tenure in extension services and human asset administration abilities. However, Madukwe (1996) argued that the performance of extension services has been, generally, unsatisfactory because of the way staff carry out their supervisory roles.

It is therefore necessary to determine the competency needs for effective job performance of extension agents and incorporate those competencies into training, in order to increase the capacity of extension organizations for better service delivery to her clients. This definitely can increase the rate of adoption of new technologies by clients and consequently improve agricultural productivity.

1.2 Statement of the Problem

A considerable lot of the rural advancement programs have been initiated by the Federal Government of Nigeria, however when these projects are assessed against the expansive goals of diminishing country destitution and change in farming produce, the outcome shift from genuinely fruitful program to token endeavours in a few and costly disappointments in others (Okomoda, 1998). Most times, some of these failures are attributed to farmers, regarding them as change resistant.

However, one critical inquiry that strikes a chord is: are the expansion specialists who are in charge of the dispersal of these agricultural developmental programmes capable in playing out their parts as operator of change? Rai and Rigyal (2007) observed that, absence of specialized competency by extension agents brings about the issues of extension non-performance and ineffective delivery of extension services. It is imperative to recognize

augmentation operators' present levels of capabilities in the region of horticultural projects scattering. A more noteworthy comprehension of the skills required by existing and recently procured extension agents is essential for organizational improvement (Owen, 2004).

Today, extension programmes are more varied than ever and will continue to change to meet the demands of the farmers whom they serve. However, there is always a gap in the competency of extension workers. According to Omoregbe and Ajayi, (2009) there is a need to frequently break down the specialized capability and occupation execution of extension staff in an association and plan an in-benefit training for extension workers to address up with the present difficulties. Allo (2001) stated that one of the key factors limiting the improvement of effective training programmes for agricultural personnel in developing nations like Nigeria is the shortage of information on their training needs. This will indicate the current areas of competency of extension agents; identify the new competencies necessary for them to effectively serve the needs of rural farmers, and plan an in-service training for the extension staff as future extension personnel need to be more skillful and futuristic to serve the needs of rural farmers (Seevers et al 2007).

Furthermore, available literature indicate that, little study has been done on the level of needed competencies in relations to job performances of extension agents especially in the south eastern Nigeria. Most studies focused on factors related to issues affecting competencies and job performance without addressing the effects of competencies of extension agents on their job performances. Past researches have recognized the dissemination of farming development and competency needs of extension staffs. Ogunlade, et al, (2006), reported that deciding the abilities and performance of extension personnel is one of the objectives for realizing expanded hierarchical adequacy. As a result, improved performance of extension agents is one of the targets for bringing about increased agricultural production and subsequently improvement in the national economy. The dissemination and

adoption of agricultural technologies require technically competent and committed extension workers. Recognizing the importance of competency needs of extension agents for a successful extension package delivery, this study therefore, attempts to supply answers to the following research questions

1. What are the socio-economic characteristics of agricultural extension agents in the study area?
2. How competent are extension agents in the study area?
3. Does the competency level of extension agents vary across the South Eastern states?
4. What are the levels of job performance of extension agents in the study area?
5. What are the constraints to the acquisition of needed competencies?

1.3 Objectives of the Study

The general objective of this study is to determine the competency needs of extension agents for effective job performance in south eastern Nigeria. The specific objectives are to:

1. Describe the socio-economic characteristics of agricultural extension agents in the study area.
2. Investigate the level of competency of extension agents in the study area.
3. Investigate the variation in competency level of extension agents across the states in the study area.
4. Determine the level of job performance of extension agents in the study area.
5. Identify the barriers to the acquisition of needed competencies by the extension agents.

1.4 Hypotheses of the Study

H₀₁: There are no significant effects of socio-economic characteristics on competencies of extension agent across the south eastern states of Nigeria

H₀₂: There is no significant effect of competency categories on job performance of the extension agents.

H₀₃: There is no significant effect of socio-economic characteristics on job performance of extension agents in the study area.

1.5 Justification for the Study

Given the limited research on extension agents' competencies in relationship to their job performance in the study area, this study becomes essential. Similarly, the insufficient and low productions in agricultural produce in the study area and Nigeria in general have put the competency of agricultural extension agents in question. It is important that the competency of agricultural extension agents have not been thoroughly examined and reassessed in the study area. The intent of this research is to provide comprehensive analysis of competencies needed by extension agent for effective dissemination of agricultural technologies and innovation. Therefore, this study will provide implicit knowledge for the management of agricultural development programme on the needed competencies of extension agents for successful diffusion of agricultural innovations and strengthening of commitment towards extension programs and organization.

Furthermore, the findings of the study will help to provide implicit knowledge on the potential constraints to the needed competencies of extension workers and determine if there is any disparity in the competency needs of male and female extension agents. An assessment of the determination of the competency needs for effective job performance of extension agents in the south eastern Nigeria will increase in the study area and allow better judgment. It will also reveal variation in competency levels across the states and pave ways for adjustment in weak states.

1.6 Operational Definition of Terms

The following terms used in the study are defined as indicated below.

Clientele: refers to farm producer by extension workers.

Competency: defined as knowledge, skills, or abilities possessed by an individual required to carry out a successful job.

Extension: Is a voluntary and out of school education programme consciously planned and directed by the specialists to assist people developing sound and rational attitudes towards desirable changes.

Extension Delivery: This refers to the various means through which innovations on farming system, improved home management, and general development are communicated to the farmers: This could be accomplished via individual, group and mass media method.

Extension agent: is the field extension personnel employed by the Agricultural Development, an agricultural extension worker, a change agent, a professional serving as a link between the government and the people. He or she intervenes to bring about change in order to help improve the lives of farmers.

Extension worker: usually a technically trained person with excellent people skills involved in agriculture.

Innovation: Is an object, practice, item or idea or method which is regarded as new by an individual, but which is always the result of recent research.

Job performance: is an individual's output in terms of quality and quantity expected from every employee in particular.

CHAPTER TWO

LITERATURE REVIEW

2.1 Concept of Competencies

The term competency has been used in various ways in the literature. Competency is one of the most essential concepts for business to achieve success in any of the day-to-day job performance responsibilities, from task management to recruiting, from training & development to advancement.

Accordingly, Competency for any organization means

- having personnel with the ability to execute the principles,
- skills, behaviours, processes and techniques needed to perform a given task,
- Procedure or set of tasks to achieve the pre-defined desired results.

Boyatzis (1982) defines competency generally as a unique characteristics of human being. It could be reason, characteristic, and talent, aspect of one's self-image or communal role, or body of knowledge which the individual uses. Competence is a term that is used both scientifically and in everyday language. Competence can be attributed to individuals as individual competency, social groups or institutions as in organizational competency, when they possess or acquire the conditions for achieving specific developmental goals and meeting important demands presented by the external environment.

There is primary direct difference between two types of competencies . The difference is between personality competencies – those information, skills, and abilities that individuals in the organization possess and organizational competencies, those things that distinguish collective action at the executive level. Studies have recognized a wide variety of factors in

terms of individual competencies and these factors are generally important for staff and management success in organizations (Parry 1998; McLagan 1997; Davis, et al. 1996).

The needed competencies for organizational success need a diverse perspective. Figure 1 illustrates the scope of the concept of competencies within the organizational studies. Competencies refer to both institutional and individual qualities. Individual qualities incorporate both the specialized learning and aptitudes and the performance abilities and capabilities of individual qualities. Albeit technical skills (train based learning and abilities) are clearly essential for hierarchical achievement, the authoritative science writing progressively focuses on the significance of execution abilities and capabilities (interchanges aptitudes, capacity to work in groups) as elements in the efficiency of 21st century associations, and subsequently, attractive attributes for workers in these associations.

Particularly in situations where cross-disciplinary work is essential for successfully executing a project, individuals with these types of competencies, and organizations with the structures and processes that enable individuals to apply their skills effectively may make the difference between a missions' success and failure.

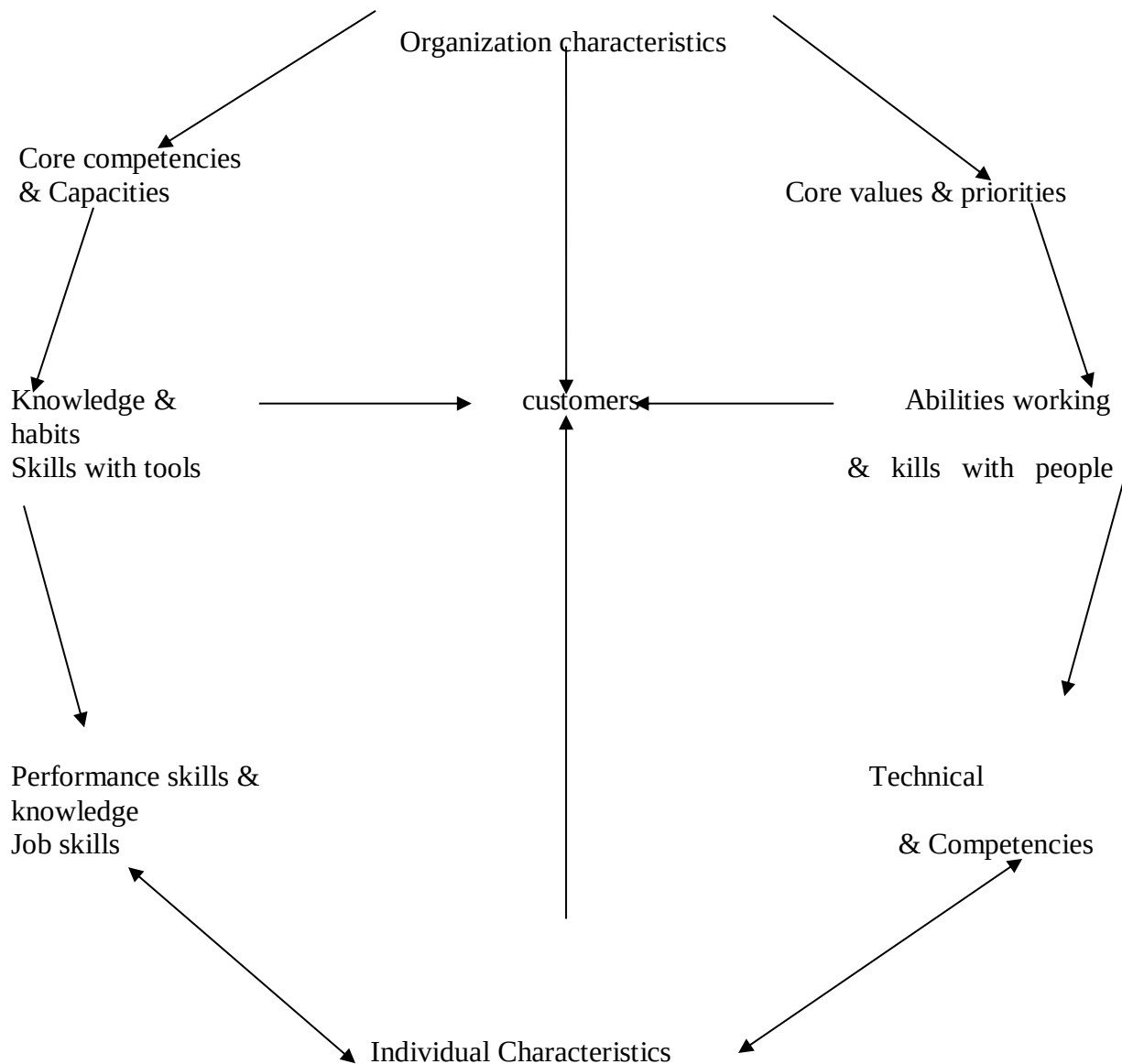


Fig. 1: The Competency Scope (adapted from Green 1999:23)

2.2 Identifications of (Major) Competencies Need for Extension Agents

With the rise of electronic application and the utilization of information communication technology in various fields, organizations are engaging directly in the development and commercialization of intellectual property, extra individual and executive competencies are needed, adding complexity to the identification and management of key organizational competencies.

Within the last twenty years, the ideas of focus abilities have been advanced and along these lines, this new idea has been added to studies (Stone and Bieber, 1997). A center (authoritative) capability implies a collection of skills and knowledge that empower an association to give a specific advantage to clients, and consequently to rival its opponents all the more successfully. Organizations should have needed competencies and differentiating competencies. Essential competencies are all those that help to create assessment, but differentiating competencies are those that give a particular organization or groups of organizations a competitive edge over its rivals. Linder and Mustain (2004) refer to these differentiating competency needs as the organizations competitive weapons. According to Buford, et al (1995), as extension workers confront the difference in adapting new skills, keep up their capability or winds up qualified; the significance of a powerful staff training program for extension agents is paramount.

2.3 Competencies in Extension Services

The increase in the demand for food and improvement in the livelihood of the rural people; the evolving of technology change, and the liberalization of global market create new challenges for extension agents. Extension agents needs to proactively recognise when the change is necessary, respond, manage it effectively and adapt instantly. In the Extension Committee on Organization and Policy (ECOP) Vision for the 21st Century report (2002, p.6), one of the recommendations for Extension was to meet those changing needs by building an organization that empowers, encourages, and supports shared leadership and proactive decision-making by individuals who have the most relevant information and who operate at a level close to the issues. A major concern for Extension is determining which professional competencies are most needed by the organization and committing resources to acquire, develop, and utilize them. According to Stone and Bieber (1997), competency is not

a new concept for Extension, which has long looked to better its performance. Gibson (1994) stated that as early as 1959, the National Committee on Extension Administrators had identified nine competencies that were imperative for Extension educators' success which are: (a) communication, (b) teamwork and leadership, (c) technology adoption and application, (d) thinking and problem-solving, (e) flexibility and change, (f) interpersonal relationships, (g) knowledge of Extension, (h) professionalism, (i) resource management, but rapid and continuous changes and challenges in agricultural technology require Extension professionals to constantly develop and improve their capabilities (Trede & Whitaker, 2000).

The progress of extension programs is determined mostly by the competency of extension agents to improve their job performance, because the overall Extension process is dependent on Extension agents' ability to transfer new knowledge, skills, and technology to their clients. According to Stone and Bieber (1997), continuous efforts are necessary to determine new knowledge, skills, and behaviors needed for agents to achieve excellence in extension. These efforts will ensure that extension will still be relevant in the 21st century and beyond. The participatory process of developing competencies will also assist extension professionals to continuously identify and validate the competencies that are important to achieve excellence.

Seevers, et al. (2007) reports that in 1993, the Personnel and Organization Committee of the The staff and society group of the extension distinguished 16 major competency categories that all extension staffs must have. The core competency regions include: connected research, change administration, correspondence and human relations, PC activity and programming, compromise, helpful augmentation framework, instructive programming (program advancement), assessment and responsibility, instructional improvement and getting the hang of, showcasing and advertising, authoritative advancement; individual association and administration; expert and vocation improvement; open approach training; human asset advancement and administration; and key arranging.

Gibson (2003) stated that extension instruction procedure, individual advancement, knowledge and social collaboration forms, information on organization within which they work influence competency needs. Cooper and Graham (2001), revealed 57 competencies required by the extension agents and supervisors managers in Arkansas. The genuine ones joined human aptitudes, applied abilities, specialized abilities, relational abilities, enthusiastic and insights abilities and industry abilities.

2.4 Barriers and Rewards for Competencies of Extension Workers

Rewards and barriers govern the rate of competency acquisition among professionals. The reward focus moves toward personal satisfaction, colleague recognition, and professional respect (Shinn & Smith, 1999). Organizational commitment is needed to identify and acknowledge the competencies that will meet the needs of future clients and reduce the barriers that discourage acquisition of competencies. A panel of 13 experts in the field of Extension volunteer administration identifies 12 barriers to acquiring competencies for volunteer administrators (Boyd, 2003).

The barriers identified were mostly linked to organizational cultures rather than volunteer administrators' lack of knowledge in volunteer administration. The importance of volunteers' contributions to achieving the organizations' mission must be valued. As a volunteer-driven organization, it is recommended that Extension, especially in the area of 4-H and youth development, seek employees with the required volunteer administrator competencies or make available resources and opportunities to acquire needed competencies for those administrators. The study recommend that organizations should make the acquiring of these competencies a part of the employee's accomplishment. A Delphi procedure examine including farming and common asset (ANR) operators and family and purchaser science

(FCS) specialists in Texas found five noteworthy classifications of hindrances that disheartened ANR and FCS region Extension specialists from securing center abilities (Shinn and Smith, 1999). The hindrances were time weight and expanded workloads, individual costs identified with accomplishment, expanding extents of the activity, absence of neighborhood finances, and absence of money related reward. Associations need to offer motivating forces and rewards to representatives that are vivaciously engaged with proficient advancement. Organizations need to offer incentives and rewards to employees that are vigorously involved in professional development. Even though employees are responsible for their own professional development, the organizational system must provide support to them for learning to take place in their job (Liles & Mustian, 2004, Obinne, et al. (1996) emphasised that, age of extension workers, level of acquaintance and wages paid had influence on competency of the extension agents.

2.5 Development of Competent Extension Staff

Much of the change we see in today's society has evolved from the rapid emergence of technology, which outdates itself every day. Farmers and other stakeholders are complaining about the competence of graduates of educational institutions. On the other, educational institutions are struggling to cope with numerous changes to maintain the competence of their graduates. In this scenario, development agents must be knowledgeable and committed to the adoption of agricultural technologies. Most of the farmers are as yet conventional in production techniques and along these lines, experience the ill effects of low profitability and lower wage. Now and then, the farmers are viewed as change safe

Similarly, the technologies which are thought to be alien, inappropriate and the extension agents' qualification skills in most cases are questionable, (Atala, 1993). One very important question that will must answer is: are the extension agents who are responsible for the

transfer of new innovations to rural farmers competent enough in carrying out their responsibilities as agent of transformation?

Defining and pursuing competencies remain a major challenge for most professions, including Extension. There is a need to constantly review the competency needs of extension agent and incorporate them into training needs of extension agents in order to achieve the desired skills needed for extension works. Extension workers need to develop skills in extension teaching methods to better disseminate their message to their target population.

Training needs assessment as one of the crucial steps towards identifying the area of competency needs interest, design and development of curriculum that can best suit the existing real conditions of extension staffs. Training of extension personnel contributes directly to the development of human resources within extension organizations (Vijayaragavan, et al. 1988). Training programmes are directed towards maintaining and improving current job performance through job analysis, performance appraisal, and organizational analysis.

2.6 History and Development of Extension Services in Nigeria

Extension started as just extension with the objective of disseminating information to their target population who were not privileged to see the four wall of the classroom. Extension was first utilized as a part of association with training more than 150 years back to depict the strategy for spreading learning. Agricultural extension can be said to be an advice and assistance given to farmers and their families through educational procedures on new farming methods and techniques in order to improve their production efficiency and income, bettering their level of living and up lifting the education and social standard of their livings.

According to Akubuilu (2008) as stated in (Ayansina, 2011) the history of the organization and operation of agricultural extension in Nigeria is synonymous with the historical backdrop of the development of agriculture in the country. The time of the provincial organization in

Nigeria, 1861-1960, was punctuated by rather specially appointed consideration regarding agrarian advancement. Amid the time, significant accentuation was put on research and augmentation administrations. The primary striking action of the period was the foundations of a plant examine station in Lagos by Sir Claude McDonald in 1893. This was trailed by the procurement of 10.4 km of land in 1899 by the British Cotton Growing Association (BCGA) for exploratory work on cotton, and named the trial region.

Moor Plantation in Ibadan. In 1912, a Department of Agriculture was set up in every one of the then Southern and Northern Nigeria, yet the exercises of the Department were basically suspended in the vicinity of 1913 and 1921 because of the First World War and its outcome. From the mid 1920s to the mid 1930s, there was a resurgence of exercises and this period has been known as the 'Faulkner Strip Layout' time to pay tribute to the Director of Agriculture, Mr. O.T. Faulkner, who conceived a factual outline for exploratory trials in green manuring, compost ventures, rotational trimming frameworks and domesticated animals sustaining. From the late 1930s to the mid 1940s, there were critical increase and development of research exercises, and extension and preparing system of the Agricultural Departments. Extra offices for preparing of junior staff in agribusiness were given, and grants for horticultural understudies in Yaba Higher College and Imperial College of Tropical Agriculture in Trinidad. According to Fenley and Williams (1964), it is pertinent to mention that the Nigerian agricultural extension system has been patterned after the British system in which extension or Advisory Service is an integral part of the Ministry of Agriculture.

According to Aminn and Thorat (1972), a need arose in 1921 to establish a unified Department of Agriculture to serve both the North and the South. The Department was charged with the responsibilities of:

- (i) producing crops on experimental and trial basis;
- (ii) improving and maintaining soil fertility;

(iii) marketing of agricultural produce;

(iv) training Nigerians through organized agricultural education program.

The fourth function culminated in the establishment of the first agricultural training school in 1921 at Moor Plantation, Ibadan. This was followed in 1927 by the establishment of a similar school in Samaru, Zaria in the North and much later in 1955, and another school in Umudike in the East. The years (1914-1951) marked the period of unitary government in Nigeria. During this period, the organization of the Ministry of Agriculture was based on experimental farms that served the areas with similar agricultural conditions. In 1954, there was a country-wide political reorganization resulting in the creation of three separate ministries of agriculture, one each for the North, East and West. A fourth ministry was established in 1963, following the creation of the Mid-west region in that year. According to Axinn and Thorat (1972), the establishment of these ministries facilitated greater specialization of functions resulting in the extension section becoming increasingly involved in supply and education functions.

Hitherto, within the first few years of operation of the national Ministry of Agriculture after 1921, the program was largely one of governance and regulation. At present, there are as many as different ministries of Agriculture in Nigeria as there are 36 states in the country. The organization of each State Ministry is a reflection of the agricultural problems of the state. All the state Ministries are, however, related to the centre-the Federal Ministry of Agriculture and Natural Resources. However, according to Obibuaku (1983), extension work, in the real sense of the term, was not known or attempted until 1962, when the United States Agency for International Development extension experts were engaged by the Ministry of Agriculture in the then Eastern Region. According to the author, prior to this time, extension work consisted routinely of the provision of supplies and services while the education

functions were ignored. Staff training merely emphasized competence in technical agriculture, while principles and methods of extension were not taught

2.6 Extension Organization in South Eastern Nigeria

The Establishment of Eastern Regional Development Board (ERDB) by colonial government in 1949 marked a turning point in agricultural development of the region. The Eastern Regional Development (Loan) Board succeeded the Nigeria Local Development Board in April 1949. It had funds totaling over £355,000 at its disposal. The Nigeria Local Development Board had financed the development of commerce and industries program of Pioneer Oil Mill development, (POM), but when the Eastern Regional Development (Loan) Board was formed it sold these assets to the newly formed ERDB which, with far greater funds at its disposal financed a total program of sixty-seven mill for the region. The Eastern Regional Production Development Board also encouraged peasant participation by paying a subsidy of five pounds to individuals or communities for the rehabilitation of palm grooves (Progress report, 1952).

After the independence, The new Dr. Micheal Okpara's agrarian policy' (as the scheme was popularly known) was aimed at two main objectives, namely, to deal assault on the increasing trend of unemployment, especially among school leavers and to improve productivity through modern science and technology and increased wealth and living condition of everybody. During the 1962-1968 development plan period, government adopted three methods of intensifying the production of tree crops; encouragement of peasant farmers by assisted planting schemes; establishment of farm settlements and plantation projects. The farm settlement-scheme was aimed at the development of settlement villages for well-trained agricultural settlers on the land acquired by Government in selected areas throughout the Region. In the 1962-1968 periods, it was intended to establish seven settlements, each accommodating 720 farmers on about 12 acres of land per farmer (The scheme settled a total

of 1,525 farmers in Eastern Nigeria. The settlements were at Igbariam, Boki, Ohaji, Ulonna North and South, Erei and Uzo-Uwani." (Ministry of Information Enugu, 1973)

Eastern Nigeria also gave considerable opportunities for plantation agriculture. The Eastern Nigeria Development Corporation (ENDC) Plantations represented the most ambitious of the agrarian development programmes. In principle, the Eastern Nigeria Development Corporation plantation project represented a major step towards the achievement of a comprehensive agriculture development policy. A total of 148, 930 acres were acquired for plantation development in twenty-two locations in the first five years after independence. By the end of 1965, 67,000 acres had been planted with cash crops, with 85 percent coverage projected by the end of 1968, (Ministry of Information, Enugu, 1973).

The East Central State plan for 1970-1974 thus, aimed at the reconstruction of the destroyed infrastructure, revival of the modernization and improvement program initiated in 1962-1968 plan period and modest expansion of the activities in the sector.

It was to meet these challenges that East Central State Government formulated a new strategy for agricultural development. The new strategy consisted of measures aimed at generating an appreciable increase in the income of farmers even at their level of productivity and laid proper emphasis on all aspects of the agricultural development process especially hitherto neglected secondary process of storage, transportation and marketing. The agencies for implementing the new policy were the Agricultural Development Authority, the Department of Agricultural Extension, the Department of Agricultural Production and Animal Husbandry and The Forestry Commission. Established by Edict No. 13 of 1973, the Agricultural Development Authority (ADA) was to engage in the production, processing, storage, packaging, marketing, development and manufacture of agricultural products. It was also authorized to promote the activities of agencies genuinely interested in agricultural

development, to enter into partnership with such bodies if desirable and to give them credit facilities to enable them execute their programmes.

The Agricultural Development Authority (ADA) popularized agriculture in the state as it engaged in direct production, provided inputs and other facilities for farmers which they hitherto lacked and demonstrated that agriculture can be a profitable enterprise. By engaging in direct production, ADA did not compete with farmers but it complemented their efforts by providing them with such services and technical expertise which they on their own could not provide. Agricultural Development Authority during this era established and developed a number of agricultural projects and allied industries strategically located in different parts of the old East Central State. The Authority converted the pre-war farm settlements into state farms, the Authority had ten state plantations/farms located at Uzo-Uwani, Ulonna North, Ulonna South, Erei, Abakaliki, Nekede, Nkwerre/Ezunaka, Ezillo /Nkalagu, Ohaji and Igbariam

2.7 Agricultural Development Program in South Eastern Nigeria

The ADP approach was said to have been originally designed in Malawi, East Africa, to tackle the problem of poverty. The economic development in the rural areas of the country had been promoted through a strategy which focused on the contribution of improved technologies for food crops, enhanced delivery systems for agricultural extension and input supply, and improved infrastructure. A well-designed organizational structure with professional staff (hired intentionally) was employed to implement this concept. The basic concept was transferred to Nigeria in 1974 with the establishment of the first three enclave projects in the Northern part of the country. This includes: Funtua, Gusau and Gombe Agricultural Development Programs. The chosen project regions were agro-ecologically favourable areas in the northern part of Nigeria. They were located in the domains of several

Local Government Council (LGCs) of Bauchi, Gombe, Kaduna, and Sokoto States (Idrisa, et al, 2010). The apparent success of these early projects prompted both the Federal Government of Nigeria and the World Bank to quickly replicate the Agricultural Development Program model in other states. Their early results impressed both the federal and state governments, and there was pressure to replicate the approach across the whole states. By 1989, all Nigeria's then 19 states had ADPs.

The Agriculture Development Program (ADP) in the south eastern states was established with the mandate of establishing a re-organized, disciplined and well supported extension services. The service is based on training and visits (T and V) system that can motivate rural farmers and usher in significant increase in agricultural production and income of farmers, (Crochet, 2000). One of the key tasks of the Agricultural Development Program is to improve the agriculture productivity of small-scale farmers in the state and subsequently alleviating their poverty by increased farmer incomes and improved living standards. In other words, the efforts of the south eastern ADP are geared towards social change. The three major steps that are involved in the social system are invention, diffusion and consequences. Invention is the process of creating new ideas/packages; diffusion involve communicating the new ideas to members of social system; and consequences are the changes that have taken place within the system as a result of invention of the new Ideas, (D. Ayichi, 1995). Broadly, the Agricultural Development Program (ADP) has the aim of disseminating improved technologies and messages to farmers through the Management Training Plots (MIPS) under the Training and visits (T and V) extension system. The south eastern states are structured into five states with fifteen agricultural zones as shown in table 2

Table 1: Fifteen Agricultural Zones in South Eastern Nigeria

States		Zones	
Imo	Owerri	Okigwe	Orlu
Abia	Umuahia	Ohofia	Aba
Enugu	Enugu	Nsukka	Enugu Ezike
Ebonyi	Afikpo	Abakiliki	Ohaozara
Anambra	Akwa	Aguata	Onitsha

Source: The Author.

The technology transfer strategy employed is the contact farmer approach and small plot adoption technique (SPAT). They established On-Farm Adaptive Research (OFAR) as means of developing and disseminating information. The States in South Eastern Agricultural Development Programme ADP uses this as a means of developing and validating new technologies before transfer to farmers through extension system, (T.O Ezulike, 2000). The On-farm adaptive research is to generate improved agricultural technologies and message on the various components for dissemination to farmers, so the technologies in crops, livestock, fisheries, agro-forestry and Women in Agriculture WIA, generated and transferred to the farmers. The OFAR have dominated institutional bottle-necks and organizational problems and brought farmers in direct contact with research in diverse disciplines; encouraged farmers' cropping system and socio-economic circumstances.

Commercialized and improved farm input delivery system, which includes seed multiplication through-out-grower or contract farmer approach. The seed multiplication

components and out growers multiply improved seeds, cutting, seed yam etc in sufficient quantities for distribution to farmers in the state. In doing this, the ADP is given quality control a priority attention, establishing an effective linkage between farmers and credit institutions, (Central Bank of Nigeria, 2007). This is concerned with empowering farmers through group approach. This approach enables farmers to be organized into functional cooperative societies and registered through the assistance of the Agricultural Development Programme. By so doing, farmers can easily access credits, fertilizers and other agricultural inputs. Institution link farmers and farmer groups to credit and financial institutions, like, Nigeria Agricultural Co-operative and Rural Development/Bank (NACRDB) formerly, Nigerian Agricultural and Cooperative Bank (NACB) was jointly established by the federal government of Nigeria and the Central Bank of Nigeria to dispense credit to cooperatives, agribusinesses, and individual small holder farmers at a subsidized interest rate non-governmental organizations (NGOs) that have the capacity to help farmers.

To provide all-season access roads to rural communities by establishing and maintaining the rural feeder roads and other infrastructures. A distinctive objective of the ADP is the development and rural infrastructure closely related to agricultural and rural development vis-a-vis contribution to rural livelihood and food security in Nigeria. These include the construction of all-weather rural roads, dam, farm service centre, and rural water supply hence, the construction, rehabilitation, and maintenance of rural feeder roads to enhance all season accessibility of rural farming communities. The effective and timely distribution of and the evacuation and marketing of farm produce requires a network of functional feeder roads; in order to support the Federal Government objective in food production through the improved production of cassava, yam and so on, For example, the Imo State ADP, established nine medium scale cassava processing factories under IFAD/RTEP cassava initiative for the production of high quality cassava products.

2.8 Problems Limiting Extension Service in Nigeria

Some criticisms of agricultural extension have arisen from inadequate understanding of the special problems involved in bringing about social and economic change within rural societies in the twentieth century. The problems include:

1. Lack of prepared faculty, both in amount and quality, has since quite a while ago militated against the viable execution of program. The field administrators, who are at the grass foundation of the augmentation association, get preparing just in particular aptitudes and competency zones, which have been discovered for the most part deficient to empower them adapt to every one of the agriculturists' issues. Additionally, their numbers succumb to shy of the coveted focuses on; the proportion is one to around three thousand cultivating families i.e. 1:3000 (Williams and Williams, 1984). It was included that, there is no adequate time for the operator to have an effect on the agriculturist or to "learn" at work. In spite of the fact that a considerable number of operators have been presented to preparing in specialized agribusiness at work itself, their absence of experience is frequently glaring. In the event that specialists are to build their own ability and have the coveted effect on the ranchers, he included, they should remain longer in one place more than say three years.
- (ii) Lack of Coordination with the Universities: According to Adam (1990), no coordination existed at any level between the expansion benefit and the Faculties of Agriculture in the Universities, the outcome being that new graduate agrarian officers had no down to earth involvement with all
- (iii) Inadequacy of Service Amenities: insufficient office settlement and particularly absence of transport offices and basic gear are perpetual issues truly undermining the productivity of the administration, since they confine correspondence and cutoff the extent of

collaboration. A fundamental protest of operators is that, they can't get basic essentials to the agriculturists they serve at the ideal time, and at a sensible costs; they, in this way don't meet their commitments towards the ranchers (Abidogun, 1992).

(iv) Lack of credit offices: CBN (1993) commented that, credit and venture are vital to the development of agribusiness. It is kept up that it is absence of credit offices, that has shielded numerous ranchers from embracing enhanced practices, since a large portion of them need unmistakable securities, which could be acknowledged against advances. Unless sufficient organizations are set up to adjust this circumstance (Adams, 1982); most agriculturists suggest won't have the capacity to exploit enhanced practices into whose advancement we are pouring so much national vitality.

(v) Lack of topic authorities: One of the best shortcomings in most expansion benefits in Nigeria is absence of topic experts. With the low level of foundation preparing, most town expansion staffs have, there is a reasonable requirement for a framework of very much prepared masters in real zones, to help them. Without this, it is exceptionally far fetched that, the expansion administration can get to the base of the issue. (Patel et al, 1985) Patel (1985) in any case, praises that the foundation of the National Agricultural Extension Liaison Division of the Ahmadu Bello University in Zaria has gone far in the Northern states to revise this insufficiency. He at that point charged that, if the University of Ife for instance could set up an expansion contact division, this would satisfy a similar part. It would be profoundly alluring that, something of the sort be set up in all parts of Nigeria.

(vi) Inappropriate content: Adams (1982) clarified assist that a high proportion of expansion specialists to cultivate families is, in any case, of minimal pragmatic esteem, if the augmentation message is improper. This is particularly if cultivate enhancements very much adjusted to surplus work, unsophisticated aptitudes and rare capital are by and large not accessible. Misfortunes have been caused by unseemly innovation and guidelines obtained

from monetarily propelled nations. Without a decent comprehension of homestead administration augmentation, specialists have been notable console ranchers about the advantages of proposed charges.

(vii) Problems of Management and Communication Channels: It was affirmed by Wudil (1980) that, augmentation operators are not exceptionally energetic in their work and supervision is frail. Likewise that, the line of correspondence is too long. The mind boggling line of charge tends to defer and contort data.

(viii) Inadequate supporting administrations: Most of the ranch inputs provided to agriculturists are lacking, while some are lost in travel (Daramola, 1999). By and large, the sources of info arrive late to be helpful inside the cultivating season. It was included that, topic masters are not appropriately associated with the cultivating frameworks; [poverty and absence of education among worker agriculturists lessen productivity of correspondence procedures utilized by expansion. Moreover, transport offices for augmentation staff are lacking as well. The researchers at that point suggested that, agriculturists ought to approach credit market and ranch inputs. Government should appreciate cultivating programs since around (60%) of families rely upon horticulture, likewise that, private business firms ought to be adapted to render administrations to ranchers where they work.

(ix) Many specialists are uninformed of the convention and custom of their objective groups and regularly cross paths with their framework, making it troublesome for them (augmentation laborers) to get gathering of people.

Other problems include frequent changes in government and agricultural development, lack of evaluation techniques, inadequate remuneration for extension workers and other associate agents working towards the success of agricultural production (1980).

2.9 Conceptualization of Performances

The evaluation of individuals in terms of their job performance places a considerable responsibility on the managers involved. The expression 'performance appraisal' usually relates to the assessment of staff performance. There are two main categories of appraisal, viz., informal and formal. Informal appraisal is the continuing assessment of a worker's performance by his manager in the normal course of work. It is adhoc in nature and is as much determined by intuitive feelings as by factual evidence of results. Formal appraisal is an assessment of employee performance in some systematic and planned way (Cole, 1993).

Effectiveness of an Extension organization is determined by the ability of its Extension agents to design, deliver, and evaluate effective educational programs, because they are directly serving the needs of the people. According to Kahail, et al, (2008). Performance is by and large examined inside the settings of pioneer conduct, inspiration, job outline, objective setting, and most other essential area of organization research. For instance, the term performance is generally utilized as a part of all fields of administration utilizing terms, for example, performance administration estimation (Armstrong 2006) and assessment or examination (Murphy and Cleveland 1995). One of the pioneer scientists who conceptualized the term performance was Vroom (1964), who recommends an equation, to picture performance and he portrayed that it is a result of individual abilities and motivation. That is, $\text{Performance} = \text{Competency} \times \text{Motivation}$

2.9.1 Dimensions of Performance:

Viswesvaran (1993), builds up a performance examination show for extension workers. This model expects that performance estimation of extension workers can be refined utilizing the accompanying measurements: nature of work, amount of work, reliability, work plan, work assignment, balance and levelheadedness, association and consumer loyalty. Viswesvaran (2001 p.113), proposes that an exhaustive detail of the substance measurements of the

activity performance develops can be acquired by examining every one of the measures of occupation execution that have been used as a part of the differing investigations. In the light of the past performance measurements, models, parts, assignments and sets of duties of the extension agents, in this way, to measure the perspective of organizational performance, a bit of the above performance criteria were used as a part of perceiving the performance of extension agents and two measurements were created by khail, et al (2008) in light of the Yemeni setting. Measurements performances are as follows:

. Nature of work: Terziovski and Dean (1998) expressed that change in work quality is probably going to expand efficiency, execution and benefits; consequently, nature of work is viewed as the best measurement in estimating extension workers capacity to play out the destinations of augmentation projects and results set in the projects.

. Amount of work: Quantity of work alludes to fulfillment of allotted work inside the endorsed time limits.

- Attendance at work: Attendance at work refers to the extension specialists' zeal to take a shot at a suitable premise, for instance, no nonattendance without great reasons as well as reports for late work, participation regarding investment in agricultural instructional meetings and normal remaining on the day by day work.

- Dependability: As demonstrated by K-State (2006), resoluteness accentuates of the consummation of task on time and with full responsibility.

- Feedback of expansion exercises: The criticism of augmentation exercises as measurement of occupation execution can be operationally characterized as the undertakings that extension specialists need to perform keeping in mind the end goal to achieve fruitful input concerning qualities and shortcomings of completing augmentation exercises.

- Client's fulfillment: Agricultural extension employees, as other open area administrations, have seen an expanded accentuation on estimating nature of projects through customer

fulfillment studies (Radhakrishna 2002). In agricultural augmentation settings, notwithstanding, customer fulfillment refers to the way a client feels about the agribusiness extension curriculum on scales that range from extremely tasteful to exceptionally dissatisfactory.

Occupation performance is the central issue, the point of convergence of representative at work. Performance comprises both qualitative and quantitative angles. The subjective characterize those attractive social ascribe that are helpful for real errand execution. These are characteristics as lowliness and feeling of development and responsibility. Genuine work accomplishment is quantifiable against set work yield standard. The quantitative execution yields execution score, a record of how much execution that is utilized as a part of depicting a worker performance, in such terms as high, medium and low; poor, normal, great or excellent. Various estimation methods have been created to operationalize worker work execution. They incorporate, realistic and self-rating scale, and check rundown and free shape assessment. Their utilization improves a comprehension of laborer execution from quantitative quantifiable viewpoint.

Performance requirements are undertaking of the suitable conduct specifically identified with the extension agent at work task. The general prerequisites of most occupations are expressed as sets of responsibilities or employment particulars, and systems or work techniques. The head ought to interpret the prerequisites of the activity into significant and, perhaps quantifiable goals to make performance necessities comprehended. In a perfect world, these goals ought to be in quantifiable terms, for example, amount (how much or many), quality (how well), and time (to what extent). A noteworthy preferred standpoint of making an interpretation of performance prerequisites into goals is that destinations turn into a motivational apparatus or focus for accomplishment (Morgan, 1982).

2.10 Agricultural Job Performance of Extension Workers in Nigeria

The job performance of field extension workers in ADPs is an extraordinary worry to agricultural administrators, arrangement producers, farmers and improvement specialists. Therefore, assessing the job performance of these extension workers will give policy makers, program heads, and advancement professionals at all levels with significant data they need for development and future arranging.

Agricultural extension activities in the states of Nigeria today are being carried out by the Agricultural Development Program. The ADPs are designed to improve the agricultural efficiency, increase income of rural famers, and general prosperity of the little scale farmers who is the highlight of all rural improvement endeavours in Nigeria (Asiabaka, 1991; Madukwe and Obibuaku, 1991; FGN, 1997).

The accomplishment of ADPs rely upon a substantial scale appropriation of enhanced agricultural advancements by agriculturists and splendid performance of frontline extension staffs, which includes, Extension agents (EAs), block extension agents (BEAs) and block extension supervisor (BESs), saddled with this responsibility (Akinsorotan and Adah, 1997).The performance of BESs depends to some extent on compelling management from the zonal extension officer (ZEO).

Similarly, the performance of EAs/BEAs depends incompletely on viable supervision from BESs. Unsatisfactory performance of the ZEO can result in poor performance of the BESs. In like manner poor performance on the part of the BES will to a great extent lead poor performance of EAs/BEAs and ultimately with contact farmer groups/women groups (Benor and Baxter, 1984; Ekumankama, 2000).

In the performance of extension task, some personal characteristics having positive or negative impacts may become possible the most important factor. Lower level extension workers have to work under unpleasant and isolated conditions, than higher level extension

workers, thus influencing their job performances. The personality of extension personnel goes a long way in bringing about improvement on his job performance.

2.11 Competency and Job performance Relationship.

The relationship between competency and job performance is emphasized by Boyatzis (1982) in theory of successful job performance.

This model shows that fruitful movement, and along these lines execution, will happen when most of the essential parts to be particular authoritative condition, work demands and a man's capacities are dependable or fit. According to this model, a man's capacities address limit that a delegate passes on to the movement situation as required by the action endeavours. These occupational needs can be considered as what the job desires on a person. In agricultural extension work settings, skills refer to extensions workers competency and knowledge (e.g. human development, management development, communication and programme development skills), which are needed to successfully carry out extension tasks. Consequently, extension personnel who are knowledgeable, for example, of his or her capacity to communicate or relate well with people of the rural community; plan, and implement programs serves well. Agricultural extension workers play the role of administrative leader and developing, implementing, evaluate and coordinate agricultural extension activities, as well as, improving the farmers' skill and knowledge in managing resources in the rural areas.

The association amongst competency and performance of extension workers is very much stated. Study conducted by Kahil, et al (2008) to examine the relationship between leadership competency, institutional commitment and job performance of extension staffs in Yemen, revealed that a positive relationship between leadership competency and extension workers' job performance ($r = 0.50$; $p = 0.001$). Similarly, Armstrong (2003) states that competencies are factors that contribute to high levels of individual and organizational performance.

Extension workers must be competent in technical areas of their job in terms of knowledge and skills in new technology. Boyd (2003) states that successful extension workers should have strong technical knowledge and skill. Similarly, Belay and Abebaw (2004) contend that higher rates of technology adoption by clients are achieved when extension workers possess adequate technical competency. Thatch, et al (2008) found that among regressed ten individual factors (motivation, skill as institutional designer, communication skill, skill as facilitator, teaching skill, program implementation skill, program evaluation skill, social skill ability, external contact ability, and program planning skill) against job performance; social skill, program planning skill, motivation, and program implementation skill contribute in clearing up the extension workers' performance.

Cultural competency has also become a necessity for service providers, professionals and agencies (Olsen, et al, 2006) as Cited (Tiraieyeri 2009).

Since extension is a non-formal educational function that applies to any institution/agency that disseminates information with the intention of upgrading knowledge, attitudes, skills and aspirations of the people (Rivera and Qamar, 2003). Result of study carried out by Tiraieyari (2009) showed that performance of extension workers is positively related to cultural competency($r = 0.611$; $p = 0.001$). Cultural competency will help the extension worker to know the norms and culture of the community they are serving and will assist to serve across cultural differences. According to Madukwe (1996), the performance of extension services have been generally unsatisfactory because of the way staff carry out their supervisory roles.

2.12 Factors Affecting Performance of Extension Workers

Performance of extension agents is relied upon to increment on the off chance that they have program development competencies, and to keep extension agents competent, to additionally improve their performance, these competencies must be considered and overhauled and

persistent appraisal of extension agents' competencies and performance is recommended (Tiraieyariet, *et al*, 2010).

The efficacy of extension services is also greatly dependent on the skill of extension workers, who are competent as the whole extension process is dependent on them to transfer information from extension organizations to the clients. However, there are factors influencing extension workers' job performance. Adefila (2012) reports that factors such as, poor condition of service, sporadic wages and allowances, and deficiency of vital materials and equipment to carry out the work have effects on the performance of extension staffs. Organizational Factors such as mobility/logistic factors, job design and Administration have impacts on job performance of extension workers (Okereke and Onu, 2007).

2.13 Gender Issues in Agricultural Extension and Competency Need of Male and Female Extension Workers

It is widely believed that employing agricultural extensionists that do not utilize female agents reach fewer women and thus, have a negative impact not only on women's participation, but also, on the sustainability of the project itself. With 25 to 30 percent of all households headed by women as their primary financial support (Colverson, 1995), the inability of projects to reach women is a major issue. If the dissemination of information bypasses women, the impact of the project may be severely limited and long term goals sacrificed, particularly when women are heavily involved in the agricultural sector. In addition, extension activities that are carried out without the participation of female farmers risk having negative impacts on women and their families (FAO, 1993).

Women-in-agriculture unit were created from the existing ADPs in 1989 in order to extend extensionists' services to women farmers. Since the World Bank stopped funding the programme, different states have tried to implement the programme under varying policies,

and adopting varieties of strategies to sustain the programme. The Women –In –agriculture unit of the ADPs was created in recognition of women’s contribution to agriculture.

This was as a result of a research sponsored by the United Nations Development Programme (UNDP) in 1987, which revealed that agricultural extension services had not targeted women as important clienteles, in spite of the indispensable role played by women in agriculture. The research also revealed that most of the messages from the extension agents emphasized their domestic role with topics on child care and family nutrition. The widespread assumption that men and not women make key farm management decision is a misconception, and the idea that women in the northern parts of the country were not involved in active agriculture was finally laid to rest.

To date, there is no consensus on whether it is more effective for a man or a woman to deliver extension services to women, however, extension programmes with the greater number of female staff are those to which female farmers have high and moderate access, and those with small numbers or no female staff are those with few female clientele. Furthermore, the dynamics of dissemination of information are most efficient when extension agents have close relationship with their clients in all respects except technical competence, (FAO, 1993). In the Caribbean region, research points out that female agents are better able to communicate with women rural farmers than their male extension agents, even in countries with relatively few social barriers to male-female interaction" (FAO, 1993).

The result of research carried out in Benue state, among 40 female and 110 male of extension workers by Okwoche et al (2011), revealed that high proportion of the female respondents perceived competencies in importance in the following order: ability to motivate farmers, commitment to extension work, work management, planning, organising and priority setting whereas, the three most important competencies as perceived by male agents were: ability to

motivate farmers, spoken and verbal communication fluency and development of instructional material.

2.14 Theoretical Framework

The study is premised upon the following theories.

1. The theories of administration
2. The theories of motivation
3. The theory of expectancy

2.14.1 The Theories of Administration

There are basically two types of theories of administrative organization. These are:

1. **Universal Design theory** – This theory accepts on 'the one most ideal path' of organizing the association. The theories incorporated into this area are Scientific Management, Classical Theory and Bureaucratic Theory
2. **Situational Design Theory** – This theory underscores the human part of the association. There are a few sub-streams, for example, Behavioural Approach, Systems Approach, Structural-Functional Approach, Human Relations Theory and others

Scientific Management

The main genuine idea was made by Fredrick Winslow Taylor to lead ponders in administration of industry in the United States of America toward the finish of the nineteenth century. The effect of his investigations was great to the point that administration, which was up to this point thought about a workmanship, was given the status of science. A designer by calling and preparing with his fluctuated work encounter running from a worker to that of a main specialist is viewed as the father of Scientific Management, for it was he who might first supported the deliberate reception of the techniques for science to issues of administration in light of a legitimate concern for higher mechanical productivity. He trusted that best administration is a genuine science, resting upon plainly settled laws, tenets and

standards, as establishment and present 'scientism' current administration methodologies and systems.

Taylor, himself, did not utilize Scientific Management to allude to his musings. With his down to business worry for productivity, he set accentuation on arranging, institutionalizing and enhancing human exertion at the level of the specialist.

He was keen to find out scientifically the one best way of doing each task and thus to increase productivity in the organization.

Essence of Scientific Management: Taylor underlines in light of a legitimate concern for social flourishing, close joint effort and consider participation between the specialists and the administration for the utilization of logical strategies. The four standards of Scientific Management are:

- (a) Develop a science for every component of a man's work, which replaces the old dependable guideline technique.
- (b) Scientifically select and after that prepare, educate and build up the laborer while, previously, he picked his own and prepared him decently well.
- (C) Heartily participate with other men in order to guarantee that all the work is being done as per logical standards.
- (d) There is just about an equivalent division of work and obligation between the administration and the worker. The administration assumes control over all work for which it is preferred fitted over the labourer, while before, the majority of the work and most of the obligation was tossed on the men

Classical Theory

This theory has been articulated most quite by Henri Fayol, Luther Gulick, L.F. Urwick, J.D. Mooney, A.C. Reiley, M.P. Follet and R. Shelton. These authors contend that organization is organization paying little mind to the sort of work attempted or the setting inside which it is

performed. The most essential worry of this theory is the definition of certain all inclusive standards of association. Henri Fayol: He was one of the most punctual scholars on the general hypothesis of administration. He trusted that there was a solitary 'managerial science' whose standards were appropriate, to business, as well as to government, religious and different associations. Learning of organization as opposed to specialized information, as indicated by Fayol, is what is required at larger amounts of an association. Fayol partitions all exercises in an association into the accompanying six gatherings:

- a) Technical exercises
- b) Commercial exercises
- c) Financial exercises
- d) Security exercises
- e) Accounting exercises
- f) Managerial or Administrative exercises.

Organization, as indicated by him, involves the accompanying five components:

- (I) Planning
- (ii) Organizing
- (iii) Co-appointment
- (iv) Command
- (v) Control

Fayol sees the organization from a trough's perspective and limits his investigation to top administrative capacities. His hypothesis is frequently considered as the main finish hypothesis of administration. Fayol is additionally a pioneer in proposing the requirement for deliberate preparing in organization. He proposes that preparation is a nonstop procedure, beginning from the workers inside an association. He thinks about each unrivaled officer in an association as an educator to his prompt subordinates.

Fayol suggests that managers should have the following attributes:

1. Physical, 2. Mental, 3. Moral, 4. General Education, 5. Special Knowledge, 6. Experience.

Luther Gulick wholes up the standards of association in the word 'POSDCORB'. His renowned POSDCORB, an acronym contains the principal letters of seven regulatory exercises as takes after:

Arranging: The advancement, in expansive diagram of the exercises to be done and the strategies for execution to achieve the reason set for the venture.

Sorting out: The foundation of the formal structure of expert, based on which work sub-divisions are set up and co-ordinated for accomplishing the characterized objective

Staffing: The whole faculty capacity of enlisting and preparing staff, and keeping up ideal working conditions

Coordinating: The nonstop errand of driving the undertaking by settling on choices and typifying them in particular and general requests and directions

Co-ordinating: All critical obligation of between relating the different parts of the work

Detailing: The activity of keeping bosses educated of the status of the work through reports and records.

Planning: The errands of financial arranging, bookkeeping and control

Mooney and Reiley's Onward Industry is a spearheading deal with the advancement of association hypothesis

Mooney and Reiley's figured four standards of association, they are:

- 1) The co-cordinative standard,
- 2) The scalar standard
- 3) The practical standard of sorting out errands into divisions
- 4) The staff/line standard for execution warning and official capacities

Unique specify ought to be made of Mary Parker Follet. She connects extraordinary noteworthiness to horizontal co-appointment expert acknowledgment in an association, mix of people and association, and authoritative change.

The Bureaucratic Theory

The most deliberate examination, up until this point, of bureaucratic wonders is followed back to German humanist Max Weber. Concerning inception and nature of his idea 'organisaiton' (Verband) to Weber a man could be said to have 'control' (Macht) if inside a social relationship his own particular power is practiced for the organizing of human gatherings, it turns into a unique occasion of energy called 'specialist' (Herrschaft). In this way, Weber recognizes power and expert or mastery. Expert or control is instrumental in the rise of Verband, i.e association. The most imperative part of the organization is that it figures out who was to offer charges to whom. Thus, every form of authority expresses itself and functions as administration.

The convictions about legitimization and the managerial mechanical assembly constitute the two critical criteria for the Weberian develop or typology of masteries, each comparing to a specific sort of control.

(a) Charismatic Domination: Charisma truly implies endowment of beauty, the power practiced by a pioneer – might be a prophet, a legend or a rabble rouser – substantiating the claim by goodness of his supernatural forces of valor or other unprecedented blessing or regulatory mechanical assembly is free and shaky. It for the most part comprises of the most steadfast supporters or devotees who assume the part of the delegate between the pioneer and the adherents.

(b) Traditional Domination: It gets its authenticity from the acknowledgment of it since ancient past. The people practicing specialist for the most part are called 'Bosses' who appreciate individual expert by ideals of their acquired status. Their charges convey

authenticity in light of the traditions, yet they can likewise give orders in view of their own choice. The people who comply with the requests here are called 'Devotees'. This sort of patrimonial expert gets prepared submission, as a result of an unconventional confidence in customary status and individual devotion to the prevailing individual. The managerial mechanical assembly in this sort of control would comprise of the individual relations, workers and relatives.

(c) Legal Domination: It depends on the faith in the rightness of law. Individuals comply with the laws since they trust that these are instituted by a legitimate target method. The run of the mill regulatory device relating to this sort of mastery is organization. These principles depict reasonably the pecking order, the rights and obligations of each position and the strategies for advancement, enrolment and different states of administration.

The Behavioural Approach

In Public organization, behaviouralism, as a particular line of study, began in the 1930's alongside the Human Relations Movement. The unthinking introduction of the traditionalists have been balanced the humanistic perspective of the social researchers. Berelson and Steiner have characterized the conduct sciences in this manner: By the social sciences, we mean the controls of humanities, brain research and human science - short and in addition to: Minus such specific areas as physiological brain science, archaic exploration, specialized etymology, and the greater part of physical humanities; Plus social topography, some psychiatry, and the social parts of financial matters, political science, and law. The social researchers have been adding to authoritative elements since the times of the Hawthorne studies.

Salient Features: This approach has the following salient features:

- (1) Its literature is descriptive rather than prescriptive, with the studies on motivation being an exception.

- (2) Increased attention is paid to the individual based on more realistic approach concerning motivation, decision-making process and the nature of authority.
- (3) Stress is laid on informal relationship and communication patterns among members of an organisation.
- (4) It is mainly concerned with quantification, and formal theory constructions.
- (5) Its emphasis is on empirical study based on methods such as field study, laboratory experiments or use of other statistical methods.
- (6) It is inter-disciplinary in character, and makes considerable use of propositions drawn from other social sciences.

The Systems Approach

General Systems theory is an attempt to connect the different ways in science (traditional, behavioural and management science) and therefore, to provide a broad macroscopic view of various types of systems.

Weber defines a system as, A set or arrangement of things so related or connected as to form a unity or organic whole. A system is, thus, a unified whole having a number of interdependent parts or sub- systems and have identifiable boundaries that distinguish it from its surrounding environment in which it is embedded, and with which it interacts.

Features of Social System:

- 1) Social systems are open systems, as they are in constant interaction with their environment. By contrast, physical and mechanical systems are closed in relation to their environment.
- 2) Boundaries of social organisations are not easily identifiable. It has to be understood from their activities and functions in real life situations. Physical and mechanical systems have easily identifiable boundaries.

3) Closed systems have the general tendency toward 'entropy' and disorganisation; open systems, on the other hand, have the tendency to develop through greater interactions.

The Systems approach is particularly relevant to the study of complex public organisations that have elaborate structures and that are embedded in larger social, political and economic environments.

Human Relations theory

The Human Relations theory has regularly been depicted as the Neo-established theory. It was based on the established hypothesis. The fundamental supposition of this theory is that mental and social parts of the specialist, as an individual and his work gathering, should be underlined. The impact of Pierre Janet and Sigmund Freud, is significant on the investigations of Elton Mayo.

The Human Relations theory centres on what is called casual association, and the profitability of the labourers expanded where the conclusions of the casual gathering were in congruity with the goals of the formal association. Other huge finding is the significance of correspondence framework, and especially to encourage specialists to inspire kindred labourer.

Components of the Theory: The critical components of Human Relations theory are as per the following:

(a) The Individual: This hypothesis accentuates the distinctions among people. For them, every specialist is remarkable. Every specialist conveys to the activity circumstance certain states of mind, convictions and lifestyle, and certain aptitudes, specialized, social and intelligent. The feelings and recognitions are perceived as imperative.

(b) Work Groups (Informal Organizations): This hypothesis concentrates on the social parts of man whose abrogating need is viewed as want to have a place, to be acknowledged by, and stand well in his gatherings. Mayo reasons that man's social circumstance in his work

assemble positioned first and the work was accidental. The casual association implies normal groupings of individuals in the work circumstance.

(c) Participative Management: It implies support of the specialists in basic leadership about their work conditions. Laborers talk about with bosses and impact choices that influence them. This interest brings about higher profitability.

2.4.2 The Theory of motivation

The six theory of inspiration that clarify why individuals are persuaded and perform higher or bring down in their different associations are: The value hypothesis, Hierarchy of Needs Theory, the two factor hypothesis, the anticipation hypothesis, the three needs hypothesis, and the objective setting hypothesis.

The six theory of inspiration that clarify why individuals are persuaded and perform higher or bring down in their different associations are: The value hypothesis, Hierarchy of Needs Theory, the two factor hypothesis, the anticipation hypothesis, the three needs hypothesis, and the objective setting hypothesis.

The Equity Theory

This theory was made by John Adams. The brisk summary of this theory is that as indicated by Adams, individuals contrast themselves with their companions with check whether they are being dealt with fairly and modify their own particular endeavours in like manner.

On the off chance that you buy in to the Equity Theory, the suggestion to pioneers is that you have to verify that all workers are dealt with reasonably. To make commitment, pioneers must address issues of imbalance promptly.

Two Factor Theory

As per Herzberg, individuals are roused by things like accomplishment, acknowledgment, important work, duty and open doors for development and improvement. Herzberg likewise expressed that, individuals are disappointed by things like approaches, particularly formality.

If you buy in to the ramifications of this theory, to pioneers, it is that you have to verify you spotlight and follow up on worker inspiration and disappointment as two separate issues. A critical advance is to update work and work process to work in inspiration.

In this way, the compensating procedure itself needs to influence the execution of workers in the agreed way as is normal by supervisors. In such manner, the execution estimation can be utilized speculatively to know all the more preparing needs, advancements for applicants, administration issues, expulsions, and occupation pivot (Bretz et al., 1992).

On the impacts of the rationale, Jibowo (1977) did an examination on the impact of inspirations and cleanliness on work execution among a gathering of 75 rural augmentation specialists in Nigeria. The investigation fundamentally received an indistinguishable technique from Herzberg et al. (1959) and it demonstrates a few backings for the impact of sparks on work execution. In another examination did by Centers and Bugental (1970), they likewise construct their exploration with respect to Herzbergs two-factor theory of inspiration, which isolated employment factors into two gatherings: cleanliness elements and helpers. They made utilization of an example of 692 subjects to test the legitimacy of the two factor hypothesis. Furthermore, it was found that at higher word related level, helpers or natural employment factors were more esteemed, while at bring down word related levels cleanliness factors or extraneous occupation factors were more esteemed. From this work they reasoned that an association that fulfils both characteristic and extraneous components of labourers get the best out of them.

Hierarchy of Needs Theory

This theory is probably most widely known outside of the organizational development community. The quick rundown of this theory is that according to Maslow, five levels of needs motivate people:

1. Physical

2. safety
3. Social
4. Esteem and
5. Self – Actualization

According to Maslow, as lower level needs are met, those at high levels become more important.

If you subscribe to the Hierarchy of Needs Theory, the implication to leaders is that you need to ensure employees lower level needs are satisfied. To create employee engagement, you must provide opportunities to meet higher level needs.

Three Needs Theory

The fourth major theory of motivation is the Three Needs Theory and was created by David McClelland. According to McClelland, people have three basic needs; achievement, affiliation and power. A sense of achievement is particularly important in the work place.

If you subscribe to the Three Needs Theory, the implication to leaders is that you need to ensure you set challenging goals for employees and provide lots of concrete feedback regarding achievement. If you buy into this theory it can be supported with things like leader boards, badging and social feedback.

Goal Setting Theory

People are motivated when they participate in setting challenging goals for themselves, understand their role in achieving those goals, and progress is measurable. If you subscribe to the Goal Setting theory, the implication is that you need to establish measurable objectives in partnership with employees and link these objectives to bigger company goals.

2.4.3 Expectancy Theory

The sixth major theory of motivation is the Expectancy Theory and was created by Victor Vroom. According to Vroom, people are motivated when they expect their effort will succeed in creating a particular outcome, and the outcome is meaningful for the person.

The implication of this theory is that you need to give employees lots of opportunities to succeed and significantly reward success, while clearly identifying the links between rewards and success.

Self-Consistent Theory

The thought that people look for consistency has been key to mental reasoning for quite a long time, with specialists proposing people look for intellectual consistency or harmony between their states of mind and practices. One of the most punctual mixes of this idea within organizational psychology was Korman's (1970) self-consistency Theory. Self-consistency theory looked to give a hypothetical structure to hierarchical speculations in regards to confidence level, with the general preface being that people with high confidence would be more fulfilled and beneficial at work. In Korman's (1970, p. 32) words, people will be persuaded to perform on an undertaking or employment in a way which is steady with [their] mental self view, proposing a constructive principle impact of confidence level on work performance.

Models of Job Performance:

According to Binning and Barrett (1989), there are a few distinct measurements of performance in terms of extension and content. Four sorts of models of job performance are characterized (as referred to by Viswesvaran and Ones, 2000):

1. Stand-alone, specific dimensions developed for specific job
2. Stand-alone, specific dimensions developed to apply across jobs
3. Dimensions developed as a set that are applicable to specific occupations

4. Dimensions developed as a set that are applicable across jobs.

The last model of job performance (Dimensions Application crosswise over performance), which is considered important and helpful for this examination is talked about. As indicated by this performance show, the measurements include regions of obligation and employment related performance desires. The performance measurements portray the conduct or results that a worker is relied upon to display when they are effectively performing (Viswesvaran and Ones, 2000). Campbell (1990) portrays the general dormant structure of job performance as far as eight measurements. The eight components are: work particular errand capability, non-work particular assignment capability, composed and oral correspondence, exhibiting exertion, keeping up individual teach, encouraging companion and group execution, supervision, and administration or organization. Thus, Viswesvaran (1993) recorded ten measurements: general occupation execution, work execution or profitability (amount), exertion, work learning, relational ability, managerial fitness, nature of work, correspondence skill, initiative, and consistence with rules.

Likewise, Kane (1986) fought that each activity capacity could be evaluated as far as six measurements. The six measurements are: quality, amount, convenience, cost-viability, requirement for supervision, and relational effect. A portion of these measurements may not be significant to all activity exercises, while Burke, et al. (2002) distinguished 11 measurements that incorporate nature of work, amount of work, activity, and client correspondence, arranging authoritative duty, work information, assignment, relational introduction, self-advancement and record administration. There might be extra and more broad performance measurements that traverse different regions of employment duty and are viewed as basic for achievement in every aspect of an occupations obligations. From wide assortments of measurements, a portion of those measurements in light of the particular needs of extensionists' position will be chosen and connected to this investigation.

2.15 RELATED EMPIRICAL STUDIES

There are five noteworthy component that decide the activity exhibitions of extension staffs

1. Competency levels of the extension personnel
2. Barriers to Acquire Desired Competencies
3. Training requirements of the extension staffs
4. Gender sensitivities of extension workers
5. Extension workers work Satisfaction.

Agricultural extension workers are staffs who are saddled with the duty of meeting the objectives of extension framework. In any case, there has been less information on the parts and performance of extension agents in the most developing countries like Nigeria , despite the fact that there are sporadic measurement on feedback that extension was not having the capacity to play out the important changes in the rural community (Sallam and Akram 2005). Understanding this circumstance, hence, it is extremely basic to know the skills of extension agents and how do these abilities influence their job performance.

Globally, there abound numerous researches in agricultural extension contexts that focus on competencies of extension, training, job satisfaction and job performance of extension workers.

However, it is rarely found a study that focuses on the aspects of extension workers' competencies, constraint to the desired competencies, training needs and competency needs of male and female extension workers in relation to their job performance. The study therefore seeks to fill this void particularly in the Nigeria context.

2.16 Conceptual Framework

This framework is presented as a convenient means of arranging the topic conceptually for the purpose of highlighting the potential components of the researcher study. The framework contains four basic components which are described as independent, intervening and dependent variables as well as the subsequent effects of the between and among these variables. The hypothetical diagram is synthesized essentially from the theories presented in the foregoing paragraphs. According to the diagrams the independent variables are made up of extension agent's socio-economic characteristics and competencies levels. The socio-economic characteristics include: age, sex, educational level, extension workers income, level of experiences and the competency levels include: leadership development competency, program evaluation competency, extension teaching methods competency, program planning competency, computer knowledge/skills competency, communication competency and human relations competency. The socio-economic characteristics are capable of increasing extension agents' job performance and the competencies of the extension workers will enhance job performance. For example Problem solving is the ability to solve problems effectively in a creative and logical manner, human relation competence is the ability to maintain a good working relationship with people or organizations involved in extension work. Computer Knowledge and skills is the ability to gather data, analyze and use information for extension work. Technical expertise is the capacity to use professional techniques and knowledge required by the qualification to meet the needs of agricultural organizations.

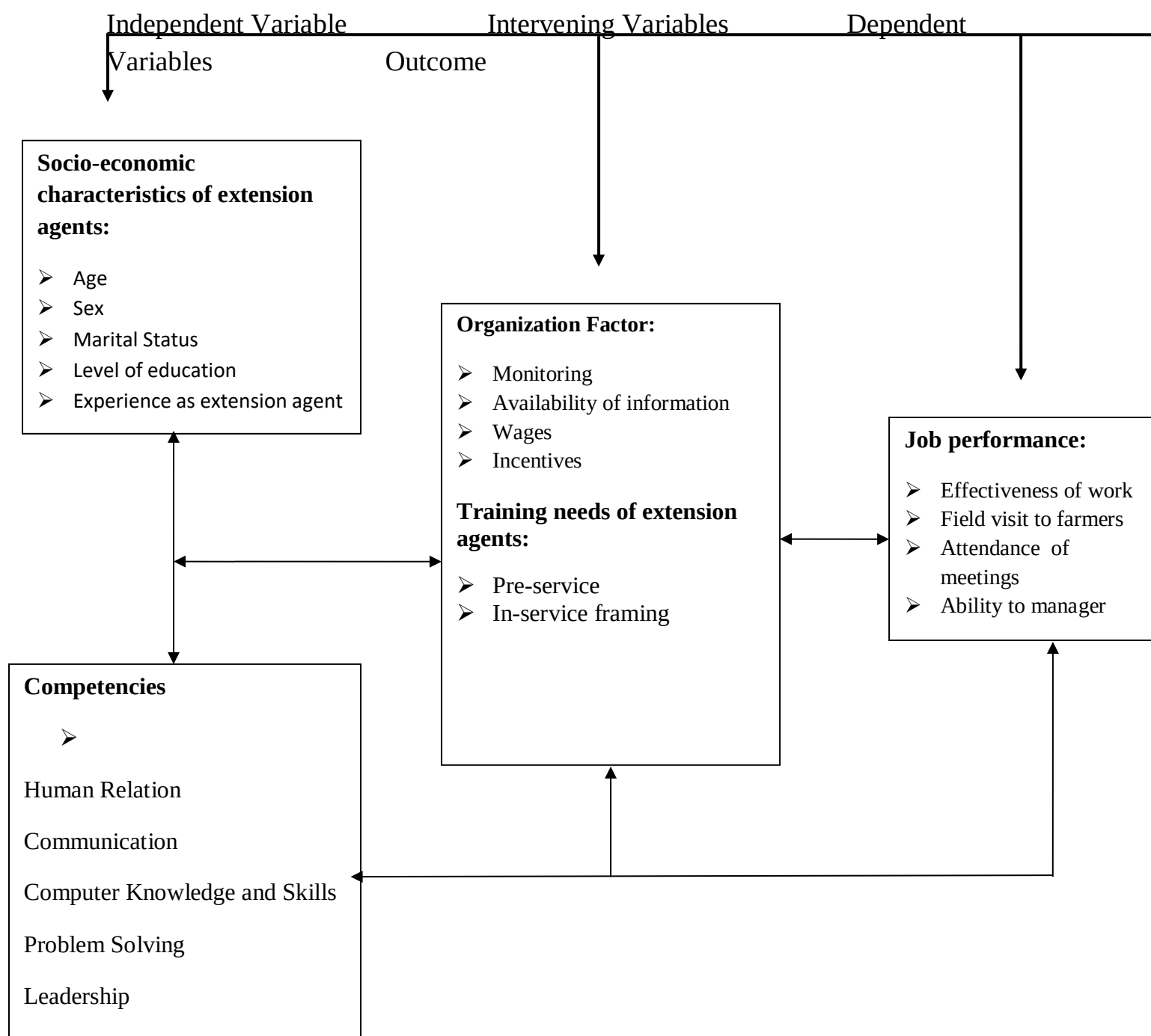
Intervening variable in this study comprise the organizational structure such as monitoring, quality of material & equipment supplied to extension departments, access to information, wages of extension workers, incentives, coordination and planning of extension works, staffing and training needs of extension agents: pre-service and in-service training. The

components of the intervening variables shows up not to be noticeable in terms of carrying out the need to judge on job performance of extension workers, and giving satisfactory training to extension workers which will prepare them for the task ahead.

The performance of agricultural agent was characterized as the dependent variable in the study. The feasibility of extension work is possibly to increase productivity, performance and profits; quality of work is the observation as the best measurement in determining extension workers ability to perform the aims and objectives of extension activities and outcomes set in the extension works. Quantity of work refers to completion of assigned work within the prescribed time limits. The capacity to manage is a component of how much information does the extension have and how possible would he impact this unto rural farmers.

This study estimated the performance of extension agents. They are in charge for assisting farmers in terms of lifestyle, farm management, farming, planning, execution, assessment and feedback phases, while they worked for agricultural organizations. However poor organizational structure have made extension information dissemination and performance of extension agent weak, therefore, farmers are left to operate within the context of their rudimentary knowledge.

CONCEPTUAL FRAME WORK



CONCEPTUAL FRAME WORK ON DETERMINATION OF COMPETENCES INFLUENCING JOB PERFORMANCE

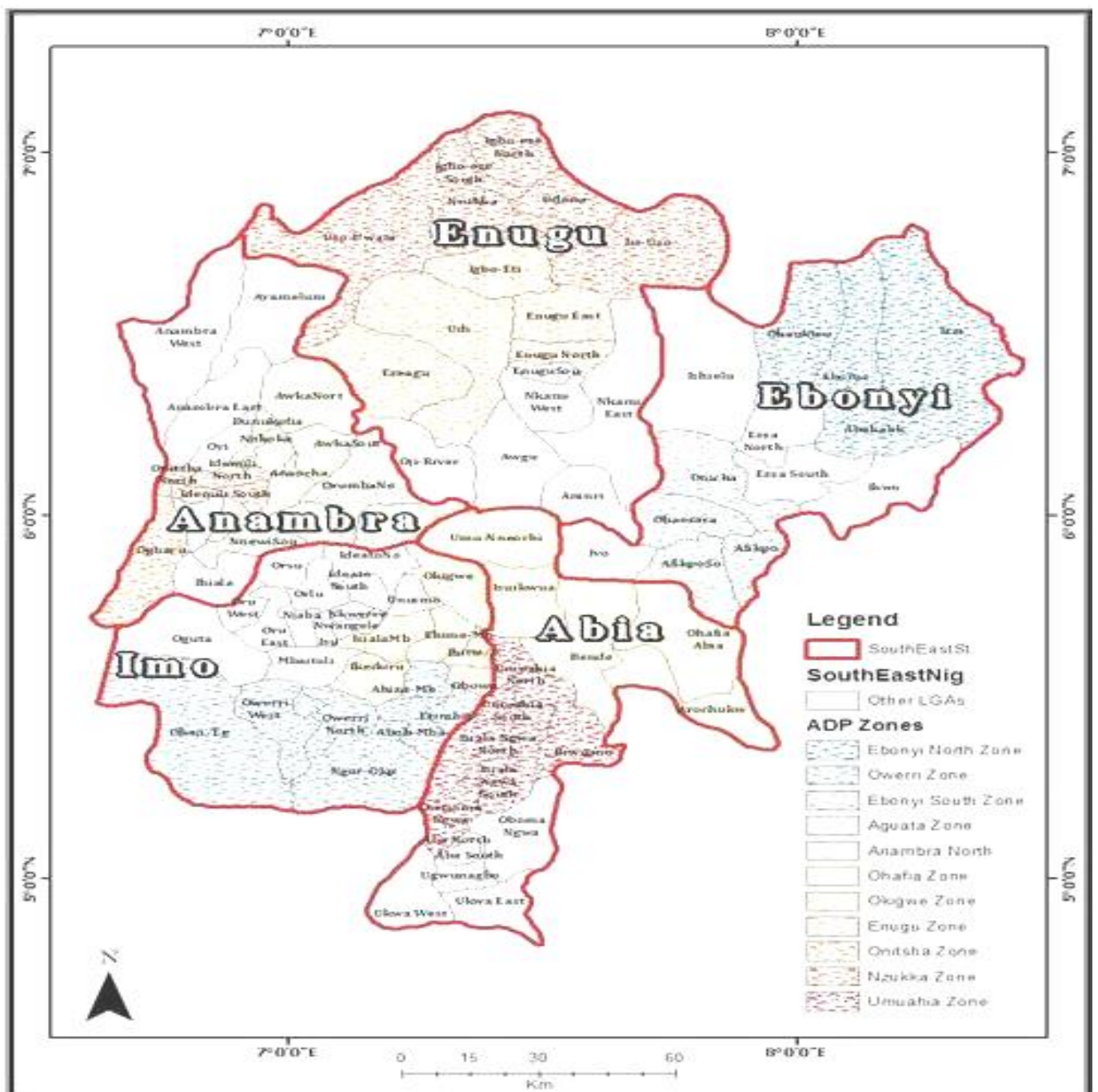
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CHAPTER THREE

METHODOLOGY

This chapter discusses the study area, population of the study, sampling technique and sample size, instrument for data collection, validation and reliability of the instrument of data collection, measurement of variables and statistical tools for data analysis.

3.1 The Study Area



Source: Author

Figure 2: Map showing study locations in the South Eastern part of Nigeria

The study area is South-Eastern part of Nigeria. The south east was one of the initial Nigerian twelve states that were created in 1966. It was later divided into the present Anambra and Imo State. In the 1990s, South- East became the name of one of the six geo-political zones in Nigeria consisting of Abia, Anambra, Ebonyi, Enugu, and Imo States.

3.1.1 Geographical location

Geopolitically, the south eastern part of Nigeria includes five states viz Abia, Anambra, Ebonyi, Enugu, and Imo States (Figure 1). It is the home of the Igbo people of Nigeria. It is situated within latitudes $4^{\circ} 47' 35''$ N and $7^{\circ} 7' 44''$ N, and longitudes $7^{\circ} 54' 26''$ E and $8^{\circ} 27' 10''$ East. It is limited on the South by Rivers state, in the East by Akwa Ibom and Cross River states, in the West by Delta state and in the North by Benue and Kogi States. The region is generally agrarian and there is in this manner much reliance on land resources, because of its dense population of about 1000 people/Km². It has about 37, 845Km in land mass (Udo, 1970) with 60 percent of this zone covered by the tropical rainforest (Njoku, 2006).

3.1.2 Climate and vegetation

Being that the greater part of south-eastern Nigerian states is within the tropical rainforest; the soils are largely a combination of hydromorphic soils, vertisols and ferrasol (Areola, 1983). Air temperatures over South-eastern Nigeria are generally high all year round. Current maximum temperature of the area is 32⁰C while the minimum temperature is 21⁰C, and a relatively wet coastal area with an annual rainfall total surpassing 3500mm (Njoku, 2006). Likewise its north is generally drier with an annual rainfall total of about 1800mm within Enugu and Ogoja areas (Nwagbara, 1997). This reliance on land has led to the over use of the land resources in the region, prompting to the farming of agricultural lands yearly.

3.1.3 People and Occupation

The states selected for the study are great extent dominated by the Igbo speaking people. In any case, settlers from various parts of the country are discovered scattered throughout the zone. The major occupations of the inhabitants are business and farming. Agricultural practice is to a great extent conventional and characterized by small land holdings (1.2 ha average holding). The use of simple farm tools such as hoe and cutlass, communal or family land holding and shifting cultivation are predominant. Food crops cultivated include: Yam, Cassava, Cocoyam, Maize, Rice, Plantain, leafy and fruit vegetables, Cash crops include: Cocoa, Kolanut, and Oil palm.

3.2 Population for the Study

The population for the study comprises of all the frontline extension agents of the Agricultural Development Program in Abia, Anambra, Ebonyi, Enugu and Imo states in the South- East Nigeria.

3.3 Sampling Procedure and Sample Size

A Simple Random Sampling procedure was used in the selection of the respondents from the Agricultural Development Project offices in the study area. There are differences in the number of extension agents in each state. However, seventy per cent of the total number of extension workers was selected from each state. A total of three hundred and eight (308) respondents constituted the sample size. Also, two hundred and eighty three (283) questionnaires were found fitting for use in the analysis. Therefore a response rate of two hundred and eighty three were used for this study.

The following shows the sampling procedure.

TABLE 2: Distribution of Agricultural Zones, Blocks and Circles in the study area

STATE	Zones	Blocks	Circles	Total Number of Extension Agents	Sample of EAs selected (70%)
ABIA	Umuahia/Aba/Ohafia	24	193	76	53
ANAMBARA	Akwa/Aguata/Onitsha/An ambra North	19	152	62	43
EBONYI	Abakalike/Afipko/Ezzi	24	192	122	85
ENUGU	Enugu/Nsuka/Agwu	24	160	58	41
IMO	Owerri/Okigwe/orlu	38	326	124	86
TOTAL		129	1023	442	308

Sources: The states ADP Offices 2014

3.4 Instrument for Data Collection

Quantitative data for the study was obtained with the use of a structured questionnaire. Two sets of questionnaires were used for this study. The first questionnaire which was made up of three sections was administered to the extension agents. The first part addressed the socio-economic characteristics of the respondents, the second part on competencies of extension agents on the Agricultural Development Programs activities, while the third part elicit the barriers to needed competencies of extension agents. The second questionnaire was designed for the BESs to rate the extents to which every one of the 16 different job performance statements or items represent the level of job performance of each of the extension agents under their jurisdiction and working in their respective blocks.

3.4 Validity and Reliability of Research Instrument

3.4.1 Validity Test

Validity is the degree an estimating instrument measures what it is required to measure. With the end goal of this investigation, content and face validity were utilized to decide the adequacy of the content of the measuring instrument. The instrument was developed on the root of the study objectives. Experts in the field of Agricultural Extension and Rural Development Department, University of Ilorin, scrutinized the instrument to improve its content and face validity. Thereafter, the necessary modifications were made; ambiguous items were amended while those considered irrelevant were removed.

3. 4.2 Reliability Test

Reliability of an instrument refers to the degree of consistency and precision (accuracy) of an instrument i.e. the degree to which the instrument measures the same thing, time after time and item after item (Ogunleye, 2000). It is the ability of an instrument to consistently create a similar result provided no real change has occurred in its features. There are three methods used to determine reliability which include: Test – retest method, multiple form method and split – half method. The reliability test for the instrument for this study was conducted using test – retest method involving a sample of 20 respondents randomly selected from the population of the study which do not include the respondents used in this study. After a period of 2 weeks, the exercise was repeated on the same set of the respondents. Scores were assigned to the items relating to socio economic characteristics, competencies and job performance of extension agents. The total scores for each exercise was computed and subjected to Pearson product moment correlation analysis. A reliability coefficient of 0.883 was obtained for the competencies of extension workers, and 0.944 was obtained for the job

performance of extension agents. This was considered high enough to accept the instrument as reliable.

3.5 Measurement of variables

The variables were operationalized as follows:

3.5.1 Dependent variable

Dependent variable for this study is extension workers' job performance, which was measured using 16 items based on different functions performed by extension agents. To evaluate the job performance of the field extension workers, each of the sampled EAs, was assessed by his/her immediate block extension supervisor, their various job performances as linked to their extension programs/activities was rated on a five point Likert-type scale. The five points on the scale were graded as follows: 1= Very Low, 2=Low, 3=Average, 4=High and 5=Very High job performance. The total score of each job performance ranges from 5 being the lowest to 80 being the highest on this scale. For the purpose of this study a benchmark of three was adopted as an average mean, a mean greater than 3 denoted a high job performance while a mean less than 3 denoted low job performance

The job performance items were adopted and modified from previous literature on job performance requirements of extension workers as reported by Ekumankama and Anyanwu (2007).

3.5.2 Independent variables

The independent variables for this study are the seven competency categories:

1. The Leadership development competency.
2. Extension teaching/ Communication methods competency

3. Technical/ Subject Matter Expertise competency
4. Evaluation competency
5. Program planning /evaluation competency
6. Computer knowledge / Skills competency.
7. Human Relation competency.

To measure the competency levels of the extension agents, respondents were asked to rate their current level of proficiency for 35 sub competencies related to seven competency categories, on a five point Likert scale ranging from being Very Low to 5 being Very High. The 35 items in the scale were divided into seven competency categories. Those seven competency categories were Human Relation, technical/subject matter expertise, programming, communications/teaching methods, evaluation, computer knowledge and leadership. The competency level of each category was measured by using a five-point Likert scale and five items related to the conceptual theme of that category. The total score of each competency level ranges from 5 being the lowest, to 25 being the highest, on this scale on this study. The overall Extension competency score ranges from 35 being the lowest competency level to 175 being the highest competency level on this 35 item scale.

From the rating scale, for the purpose of this study, a benchmark of 3 was adopted. A mean greater than 3 denoted a high competence while a mean less than 3 denoted low competence. The total score of each competency category ranges from five being the lowest to twenty five being the highest on this scale.

The extension agents were asked to indicate their current level of their competencies on extension works on: Human Relation, technical/subject matter expertise, programming, communications/teaching methods, evaluation, computer knowledge and leadership. The

items were placed on a five point Likert-type scale: 1=very low (VL), 2=low (L), 3=average (A), 4=high (H) and 5=very high (VH). Scores in the measurement variables i.e the Likert-type scale were aggregated to form the latent variables (Competency categories) which is then categorized into: 1= very low (L), 2= Moderate(M), 3=good, 4=excellent (E) and 5=outstanding.

The measurement variables are categorical variables with five rating scales (Very Low, Low, average, High, Very High). The latent variables derived are mere quantitative. Research data were entered and analyzed using the Statistical Package for the Social Sciences version 22.0 (SPSS 22.0). The questionnaire for the competency level contained Likert-type questions which were derived from literature. A drop-off and pick-up method was adopted to collect data from the respondents.

Other Independent variables include

3.5.3 Socio Economic Characteristics of Respondents.

- **Age-** the age of the respondents were measured in years
- **Gender** - 1 for male, 0 for female
- **Marital Status-** 1 if married, 0 if otherwise
- **Level of education-** (1) for Certificate of college agriculture, (2) for diploma, (3) for HND, (4) for Bachelor degree, (6) for masters, 7 for other educational certificate.
- **Years of extension working experience:** Measured in years.
- **Attendance of training extensions activities-** (1) for Yes (0) for No.
- **Distance from place of their residence to extension agents circles :** This was measured in Kilometres

- **Income per annum.** This was measured in Naira
- **Barriers to the needed competencies** were recorded on a five-point Likert scale ranging from 1 being strongly disagreed to 5 being strongly agreed.

3.6 Data Analysis

Data collected for the study were arranged, coded and analyzed through the use of Statistical Package for the Social Sciences (SPSS) computer programme. Both descriptive and inferential statistical tools were utilized to analyze the data.

A. Descriptive statistical tools used were frequency counts and percentages.

B. Inferential statistical tools were used to test the various hypotheses of the study. These include:

The following inferential statistical tools were used for the study.

Pearson product moment correlation analysis used for Reliability Test.

Multiple linear regression models used for Hypothesis 1, 2 and 3

3.7.1 Multiple Linear Regression Models

Multiple linear regression attempts to model the relationship involving two or more independent variables and a dependent variable via fitting a linear equation to observed data. Each value of the independent variable is associated with a value of the dependent variable y . This line describes how the mean response changes with the independent variables. In this study, multiple regression models were employed to establish the contribution of independent variables that is the competency levels to the job performance of extension workers.

The Equation for multiple regression models is as follows:

$$Y = b_0 + b_1 (X_1) + b_2 (X_2) + b_3 (X_3) + b_4 (X_4) + b_5 (X_5) + b_6 (X_6) + b_7 (X_7) + e$$

Where:

Y = Job performance

b₀ = Constant (intercept)

b₁₋₇ = Estimates (regression coefficients)

X₁ = Competency on teaching methods/communications

X₂ = Competency on subject matter

X₃ = Competency on program planning

X₄ = Competency on program evaluation

X₅ = Competency on human relations

X₆ = competency on leadership

X₇=competency on computer knowledge and skills

e = Error

3.7.2 Pearson Product Moment Correlation Analysis.

Pearson product moment correlation analysis was used for pretesting of the instrument used in this study. The Model is specified as:

$$\frac{n\sum xy - (\sum x)(\sum y)}{[n\sum x^2 - (\sum x)^2][n\sum y^2 - (\sum y)^2]}$$

Where r = Correlation coefficient between X and Y,

x = sum of the data x distribution,

y = sum of data in y distribution,

xy = sum of the product of x and y,

x² = sum of the squared x,

y² = sum of the squared y,

xy = squared of sum of y,

n = Number of pairs of the measurement

CHAPTER FOUR

RESULTS AND DISCUSSION

This chapter of the study presents the analysis of the data, result and discussion obtained from the field.

4.1 Socio-Economic Characteristics

The socio-economic characteristics presented in this study include age, marital status, and sex, others are level of education, and income.

Table 3: Percentage Distribution of Respondents by Social Economic Characteristic

Socio-Economic Characterizes	Categories	Frequency	%
Age	less than 30	16	5.7
	31-40years	114	40.3
	41-50years	131	46.3
	51-60years	22	7.8
Sex	Male	131	46.3
	Female	152	53.7
Marital status	Single	33	11.7
	Married	236	83.4
	Widowed	14	4.9
Educational levels	SSCE	20	7.1
	Certificate of college of Agric	72	25.4
	OND	125	44.2
	HND/Bachelor degree certificate	58	20.5
	Master degree certificate	8	2.8
Income	≤ to N400000	86	30.4
	N400001-600000	99	35.0
	N600001-800000	98	34.6

N = 283

Source: Field Survey, 2015.

4.2.1 Age of the Respondents

Implementation of extension programme requires participants of different age groups that possess the energy to carry out the organizations activities. The age (in years) of respondents were grouped to reflect the level of individual responsibility, expected physical strength for an extension agent on farm and non-farm work. Table 3 shows that, 46.3% of the extension agents were within the age bracket of 41-50 years of age, 40.3% of the respondents were of the age bracket 31-40 years, and 7.8% of the respondents were of the age bracket 51-60 years of age, while 5.7% of the extension agent spray within less than 30 years of age. This implies that the majority of the extension agents were still in their vibrant years of 30-50 years old. The extension agents were within the active labour force, could cope with the tedious works, and were capable of undertaking vigorous activities and proficient delivery of extension programs.

The findings corroborate the results of Omoregbee and Ajayi, (2009) who reported that within this age bracket, the competency needs acquired through re-training and training programmes of extension workers can still be utilized in the organization for at least 16years. This finding is also in line with that of Onu et.al, (2005) who found that majority of front-line extension agents in Enugu state falls within the age bracket 30-40 year, these field extension workers were predominantly in their middle age, a stage in life when their productivity would be at its peak given the enabling environment.

4.1.2 Sex of the Respondents

As further indicated in table 3, more than 53.7% of the extension agents were female, while 46.3% were male. This infers that there were more female extension agents in south eastern states than the male. Previously, extension jobs were engaged for men with the believed that it was only men that were farmers and that male extension agent were needed to reach them (Airemen, 2005). On the other hand, currently, accepting the fact that women are fully

engaged in farming activities and need to be reached in order to accomplish increase productivity has necessitated the enrolment of female extension agents who are believed to be in a better place to do the job of reaching women. This study contradicted that of Okereke and Onu, (2007) who reported that 59.0% of extension agents in Imo state are males as against 43.4% in 2015.

4.1.3 Marital Status of the Respondents

Results from table 3 additionally reveal that, 83.4% of the extension agents were married, 11.7% were single, while the remaining 4.9% were widowed. Marital status is a variable tool that determines an individual's resolve to demonstrate or show a mark of social responsibility. However, the implication here is that the married extension workers may have more responsibilities at home and therefore, spend less time at work. The findings corroborates with the result of Adesiji (2006) and Okereke and Onu (2007) who reported that, greater percentage of extension workers were married in various studies conducted by them.

4.1.4 Level of Education of the Respondents

Educational level has been seen as a factor influencing the personality of an individual. It predisposes the respondents to new ideas, widens mental horizons and develops them generally (Rajagopalen and Singh, 1971). Result from table 3, indicated that 44.2% of the respondents had Ordinary National Diploma (OND) certificate, 20.5% have (HND) Bachelor's Degrees certificate, 25.4% had Certificate of College of Agriculture (CCA), 7.1 percent had senior school certificate, while 2.8% have Master degrees certificate. This indicates that a higher percentage of the extension agents had more than secondary education and are well qualified for extension programs.

It is commonly assumed in Nigeria that extension job is a low status job, fit only for people with low academic qualifications (Ejembi et al, .2006). Nevertheless, results of this study contradicts this position, and corroborates the findings of Madukwe et.al., (2005) who

reported that majority of extension agents in Enugu state had higher certificate as their highest qualification.

The implication of this finding is that all the respondents had one form of formal education or the other, this shows that they were qualified for their job and were also in their formative stage of learning on job and extension delivery. The foundational education will assist them in the effective performance of their duties given the general view that education is vital to the success of agricultural production and it upgrades the adequacy of agricultural extension agent work.

4.1.5 Income of the Extension Workers

Table 3 also shows that, 30.4% of the respondents received annual income of less than or equal to 400000, naira per annum, 35.0% received annual income of 400001-600,000 naira per annum, while 34.6% received between 600001-800000 naira per annum depending on their states of operation. The implication of this is that average of extension agents in the study area received less than fifty thousand naira per month (50,000); this however is not encouraging considering the present situation of the Nigerian economy. Enhancing workers incentive is an important motivator to every employee of labour. This is in line with Ngadiukwu, (1999) who postulated that adequate motivation is important for sustained staff morale.

4.2 Work Related Characteristics

Table4: Distribution of Respondents According to their Work Related Characteristics

Variables	Categories	Frequency	%
Distance	0-5km	140	49.5
	6-10km	67	23.7
	11-15km	27	9.5
	16-20km	42	14.8
	21-25km	7	2.5
Years of experiences	≤5years	72	25.4
	6-10years	87	30.7
	11-15years	66	23.3
	16-20years	39	13.8
	21years & above	19	6.7
Membership of Extension organizations	No	168	59.4
	Yes	115	40.6
Attendance of Training before Joining Extension Work	No	108	38.2
	Yes	175	61.8

N = 419

Source: Field Survey, 2015.

The work related characteristics presented in this study include: membership of extension organizations, attendance of training before joining extension work, years of experiences and distance of respondents to their working place.

4.2.1 Distance of Extension Workers from their Residence to their Circles

Table 4 indicated that 49.5% of the respondents reside within 0-5 kilometers from their place of work, 23.7 % reside within 6-10 kilometers from their place of work, 9.5% reside within 16-25 kilometers, 14.8% reside within 11-15 kilometers, while 2.5% reside within 16-20 kilometers. The implication of this is that half of the extension agents do not reside in their various circles and as such, this might affect the effectiveness of their work, as one of the principles of extension is that the extension officers must get used to norms and culture of the people. This corroborated with the findings of Okereke and Onu (2006) that about 94.0%

extension workers in Imo state live outside their place of operation. Agumagu (1992) argued that for extension agent to be effective, it is essential that he/she should reside within his/her block or circle so that he or she will not waste time travelling. It was further noted that the agent will be more acquainted with the environment and become accepted to the famers and also will be readily available when needed by the farmers.

4.3.2 Year of Experience in Extension Work

The length of service is probably an indicator of a person's commitment to the chosen career (Ejembi et al.2006). Table 4 further shows that 25.40% of the respondents have less than five years of working experience, 30.7% have between 6-11 years of working experience, 23.3percent have 11-15 years of working experience, 6.7% have 21 and above years of working experience, while 13.8% of the respondents have between 16-20 years of working experiences. This implies that majority of the extension workers had put in more years of service in extension work to be able to know their job description and appreciate the work better.

Also, it shows that they are not new in the job as they have acquired years of experience; therefore they are in a position to provide valid data for this study. This study corroborated with that of Okereke and Onu, (2007) and Obasi et al., (2014) who reported that the average years extension agent's experience in service Imo state and Anambra falls within 5-15 years.

4.3.3 Membership of Extension Organizations

The results from table 4 also shows that, above average number of the extension agents 59.4% indicated that they do not belong to one organization , while 40.6% indicated that they do belong to various extension organizations.

4.2.4 Attendance of Training before Joining Extension Work

Table 4 indicated that 61.8% of the respondents agreed to have attended training while 38.2% indicated not to have attended any form of training before joining the extension work. Considering the importance of extension training and manpower development before joining the extension service work, the findings revealed that some of the extension workers attended training before joining the extension work. Training is necessary to the performance of the obligations of extension workers, as knowledge and skills gained through training programs keeps the extension workers side by side of new growth in extension services works. Knowledge sharing is also the main tool used to achieve success in modern economies. It is only when extension workers are given the opportunities to upgrade their current level of knowledge that they can be competent to train farmers. However, those who do not attend training before joining the extension work are trained on the fortnightly training workshop.

4.3 Preferred Methods to Acquire Extension Competencies

Table 4: Respondents' Most Preferred time to Acquire Extension Competencies

Time to acquire competency	Freq	%
In-service training	360	58.3
New Extension agents' training	189	35.3
Before joining with Agricultural Development Program	197	26.4

*Multiple Response

Source: Field Survey, 2015.

Table 4 reveals the respondent's responses on best time to acquire most needed competencies and 48.3% of the respondents considered in-service training as the most appropriate time to acquire important extension competencies followed by 26.4% of those that agreed before joining with Agricultural Development program. This contradicts the work of Lakai, (2010) which reported that extension agents preferred training before joining the extension service

Table 5: The Most Effective Educational Delivery Method to Develop Competencies

Delivery method	Freq	%
Small group, face-to face-training workshops	433	49.8
Large group, face-to face-training workshops	228	30.9
Online training programs	134	12.3
Electronic learning materials	136	19.5
Printing of learning materials	156	17.3

*Multiple Responses

Source: Field Survey, 2015

The respondents were asked to identify the most effective educational delivery methods for them to acquire desired extension competencies and their responses have been summarized in Table 5. Close to fifty per cent (40%) of the respondents considered the small group, face-to-face training workshops as the most effective educational delivery method for them to acquire desired competencies. Large group, face-to face-training workshops, 20.9 % was identified as the second most effective educational delivery methods. Printed educational delivery learning materials 14.3% was acknowledged as the third most effective educational delivery method. Online training program method by means of printed learning materials was considered the least effective method 12.3%. This implies that the respondents require training in the area of computer knowledge and skills to be able to access information on computer associated programs to improve their competency in reaching the rural farmer

4.5 Current Competence Levels of Extension Agents

Table 6: Distribution of the Respondents' Current Level of Competency

Items	Mean	SD	Rank
Teaching methods/ Communications competency			
Conduct regular extension meeting to create awareness	3.69	0.90	
Method demonstration/ latest communication methods to teach	3.37	0.93	
Make clear and convincing oral presentations	3.60	0.98	
Demonstrate benefit of adoption Conduct group discussion	3.56	0.98	
Conduct regular meeting/training to introduce new discoveries	3.59	1.08	
Total	3.56	0.98	2 nd
Technical/Subject Matter Expertise competency			
Apply relevant subject matter to real life problems	3.34	1.09	
Explain relevant subject matter	3.48	0.90	
Identify research-based information	3.61	0.82	
Identify appropriate delivery strategies	3.35	0.82	
Demonstrate technology skills pertinent to subject matter	3.58	0.96	
Total	3.48	0.92	4 th
Programming Planning/			
Utilize effective teaching methods	3.67	0.89	
Understand basic components of educational programming	3.58	1.00	
Acquire teaching resources for your subject area	3.47	0.98	
Prepare an annual plan of work for area of responsibility	3.70	0.95	
Recruit and manage volunteers	3.51	1.01	
Total	3.59	0.97	1 st
Evaluation competency			
Evaluate extension program and farmers	3.61	0.96	
Conduct needs assessments program	3.52	0.90	
Prepare evaluation report	3.39	0.87	
Writing programme objectivities	3.48	0.99	
Using evaluation results	3.74	0.95	
Total	3.55	0.94	3 rd
Human Relations competency			
Develop trusting professional relationships	3.39	1.00	
Provide consultation to clientele groups	3.47	0.93	
Establish relationship with subject matter specialists and peers	3.41	1.06	
Understand diversity in extension	3.39	1.03	
Manage conflicts	3.22	1.20	
Total	3.38	1.05	5 th
Leadership competency			
Apply critical thinking skills	3.49	0.94	
Understand relationship of personal goals to job performance	3.31	1.04	
Understand workgroup dynamics	3.50	0.95	
Nurture leadership skills in others	3.41	0.90	
Develop a plan for building personal leadership skills	3.39	1.04	

Total			6 th
	3.43	0.98	
Computer knowledge / Skills			
Answer farmers question through email	2.05	1.06	
Use internet search site	1.63	0.72	
Handle hardware problems	1.48	0.75	
Analyse data through statistical package for social science	1.39	0.58	
Manage basic computer programme	1.60	0.74	
Total	1.63	0.77	7 th

Source: Field Survey, 2015.

Table 6 shows the current competency level of extension agents in the study area, the seven core competencies identified in the study for extension agents in the study area are: Communication/teaching, Technical/Subject Matter Expertise, Programming planning, Evaluation, Human Relations, Leadership and Computer knowledge and skills. Extension agents' current levels of proficiency in these seven competency areas were determined in this study.

Five sub-competencies for each of the seven competency categories were used to determine extension agents' current level of proficiency. The competency levels were coded on a five point Likert scale ranging from 1 being Very Low to 5 being Very High. The mean score and standard deviation on this scale for each of the 35 sub-competencies are listed in Table 4. From the rating scale, the actual mean is 3 (average): a mean greater than 3 denoted a high competence while a mean less than 3 denoted low competence. The mean scores of all 35 sub-competencies in the scale ranged from 1.40 to 3.74

The five highest levels of sub-competencies were: Using evaluation results (M=3.75), Prepare an annual plan of work for area of responsibility (M=3.72), Conduct regular extension meeting to create awareness (M=3.6820), Utilize effective teaching methods (M=3.67), and identification of research-based information (M=3.61). Meanwhile, the five lowest levels of sub-competencies were: analyze data through statistical package (M=1.39), handle hardware (M=1.48), manage basic computer (M=1.60), use internet search site (M=1.63), and answer farmers question through email (M=2.05).

This implies that ability to use evaluation results, prepare an annual plan of work for area of responsibility and conduct regular extension meeting to create awareness were rated high by the extension agents in the study area. Evaluating extension activities of such farmer's performance is one of the most critical works of extension agents; also preparation of work activities is a critical role in extension duties. As Reported by Okoweche et al. (2009), one of the extension agents' functions is to evaluate agricultural activities of farmers in order to help them prepare a plan of work and conduct meetings to meet their felt needs by bringing agricultural innovation to them.

Therefore, evaluation, communication and knowledge of extension work are central and crucial in every extension work and extension agents need high level of professionalism on these competencies. Also, study conducted by Adesiji (2006) had found similar results. In his study to determine competency needed by village extension agents in Osun state, the majority of extension workers rated their competency on curriculum design, developing evaluation plans, preparing evaluation reports, and prepare educational program plan high. Similarly, a study by Androulidakis and Siardos (1996) showed that extension agents perceived themselves as being more competent in certain task areas than being relevant.

Considering individual competencies rated slightly above average, the individual items on leadership and human relationship competencies were perceived to be slightly above average as shown in table 6. This implies that the extension agents possess less human relation competency with the famers and are also having less competency in leadership, this might be as a result of the extension agents not living within their circle of operation as it was observed in the study that most of the extension lived outside their place of circles. Maintaining relationship with farmers is essential in carrying out extension works. The extension agent has to work with people in a variety of different ways. It is often an intimate relationship and one which demands much tact and resourcefulness. The agent inevitably works with people

whose circumstances are different from his own. He is an educated, trained professional working with farmers, many of whom have little formal education and lead a way of life which may be quite different from his/hers. When extension workers are on duty, they should situate much attention on relating well with the farmers if they are to make an impact in developing people and communities through the extension services.

However, the items on computer/skills competency category had the lowest mean value. This might be attributed to limited knowledge and use of Information and Communication technologies among extension agents in the study area. This finding tallies with the study by Umar et al., (2015) which stated that seventy extension agents on Awareness and Use of Information and Communication Technologies among Extension Agents in Kaduna State of Nigeria and only twenty three were found to make use of E-library. There is need for computer skills and knowledge training among the extension workers in the south eastern part of Nigeria.

Furthermore, Table 6 presents the seven major competency needs of the extension agents in the study area. The scores for each of the sub-competencies were summarized to get the score of each of the seven core competencies. The value of core competency score on this scale range from five being very low competency to twenty five being very high competency. The mean values close to twenty five indicate high level of competencies. The highest mean value (M=3.59) was rated for the programme planning competency category followed by teaching/Communication (M=3.56) and evaluation (M=3.55) competencies category respectively. The lowest mean value (M=1.63) was rated for the computer knowledge and skills competency category. The overall mean of 3.2 was taken as a significant level of importance for attention. The implication of the result is that extension agents in the study area have rated themselves to have possessed high level competence in six out of the seven

major competencies. These include: teaching/Communication, programme planning, evaluation, Technical/Subject Matter Expertise competency and leadership competencies.

4.6 Overall Score on Competency

Table 7: Distribution of respondent Overall Competency Levels

Range of Scores	Number	Percentage
Very Low	0	0
Low	105	37.1
Moderate	164	58.0
High	14	4.9
Total	283	100

Note. Scale: 1 = Very Low; 2 = Low; 3 = Moderate; 4 = High; 5 = Very High
Source: Field survey, 2015.

The scores of all 35 competencies items were summed in table 7 to get the overall competency level of the respondents in the study area. The overall competency score on this scale range from 35 being the lowest to 175 being the highest. The overall competency score ranged from 35 to 210 with the mean value of 113.10 on this scale. The distribution of respondents' overall competency scores in quartiles is summarized in Table 7. The respondents were distributed between Low, Moderate and High. However, the majority (59.3%) of the respondents had moderate competency level.

4.7 Competency of Extension Agents across the States

Table 9: Variation of Competencies Levels Across States

Competency Categories	States														
	Ebonyi			Enugu			Abia			Imo			Anambra		
	Mean	Std	Ranking	Mean	Std	Ranking	mean	Std	Ranking	mean	Std	Ranking	mean	std	Ranking
			g	n		g			g			g			g
Teaching Methods/Communications.	3.64	0.37	1 st	3.54	0.64	4 th	3.49	0.46	2 nd	3.55	0.37	3 rd	3.35	0.57	5 th
Technical/Subject Matter Expertise	3.26	0.32	5 th	3.56	0.56	3 rd	3.58	0.40	2 nd	3.60	0.32	1 st	3.47	0.50	4 th
Program Planning	3.43	0.34	2 nd	3.82	0.59	1 st	3.47	0.43	3 rd	3.81	0.34	2 nd	3.41	0.53	5 th
Evaluation	3.41	0.25	5 th	3.63	0.44	2 nd	3.51	0.32	4 th	3.62	0.25	3 rd	3.68	0.39	1 st
Human Relations	3.07	0.39	5 th	3.42	0.67	4 th	3.56	0.49	2 nd	3.57	0.39	3 rd	3.65	0.60	1 st
Leadership	3.31	0.38	4 th	3.21	0.67	5 th	3.40	0.48	3 rd	3.51	0.38	2 nd	3.60	0.60	1 st
Computer Knowledge/skills	1.50	0.29	4 th	1.43	0.51	5 th	1.67	0.37	2 nd	1.79	0.29	1 st	1.67	0.46	2 nd

Note. Scale: 1 = Very Low; 2 = Low; 3 = Moderate; 4 = High; 5 = Very High

Source: Field Survey, 2015

The necessity to find out the level of competency of the respondents across the states in the study area people emanates from the fact that some states might perceive some competencies to be more important than others. Table 9 shows the distribution of Multivariate analysis of competencies of extension agents across the states. The teaching methods/Communication competency category was rated highest by respondents in Ebonyi state (M=3.64) followed by Abia state (M=3.59) and Imo state (M=3.55) as first, second and third respectively. However considering the Standard Error state that have high or better efficiency in this category Imo state have better efficiency with standard error of 0.37, followed by Ebonyi State (Standard Error=3.73) and Abia state (Standard Error=3.71) respectively.

Table 5 also reveals that, on Technical/Subject Matter Expertise, It was rated highest by respondents from Imo state (M=3.60) followed by Abia State (M=3.58) and Enugu state (M=3.56) as second and third respectively. The table also reveals that Imo state have better efficiency in this category with a standard error of 0.325 followed by Ebonyi state (SE=.32) and Abia State (SE=.40) as third and second respectively.

On the Programming Planning, Enugu state (M=3.82) rated it highest followed by Imo state (M=3.81) and Abia state (M=3.47) as second and third respectively. However, based on the state that has better efficiency Imo state has better efficiency with standard error of 0.34 followed by Ebonyi (SE=.34) and Abia state respectively.

Table further reveals that Anambra state (M=3.68) rated Evaluation Category highest, followed by Enugu state (M=3.63) and Imo state (M=3.62) as second and third respectively. However, Imo state has a better efficiency in this Category based on lowest level of standard error of 0.25, followed by Ebonyi state (SE=.25) and Abia state (SE=.32) as second and third respectively.

On the human relation competency category, Anambra state (M=3.65) rated it highest followed by Abia state (M=3.57) and Imo State (M=3.56) as second and third respectively. However, on the efficiency of the human relation Imo State have a better efficiency on this category with a Standard Error of 0.39.

Table 5 further reveals that on the leadership competency category, Anambra State rated it highest with a mean of (M=3.60) followed by Imo state (M=3.51) and Abia State (M=3.41) as second and third respectively. Considering the standard error, Imo states has better efficiency with standard error of 0.38.

Considering the Computer knowledge / Skills category Imo state rated this category with a mean of 1.79, followed by Abia state (M=1.67) and Anambra State (M=1.67) as second and third respectively. However, considering the standard error, Imo state has a better efficiency in this category than other states with standard error of .29 followed by Ebonyi and Abia states. This implies that more training should be concentrated of the area of information technology across the study area. This can be attributed to the fact that majority of extensionists have not gained much competence in the use of information and communication technology, especially the Internet to elicit relevant information's to the farmers. This results corroborated with the study of Ezech (2013) who reported a mean scores of 1.8 and 2.4 on access and utilization of information and communication technology (ICT) in extension service delivery in south east Nigeria.

4.8 Job Performance of Extension Agents

Table 10: Distribution of the respondents according to their Job performance

Job performance items	Mean	Standard Deviation	Ranking
Living within his/her circle	3.47	1.09	16 th
Regular and timely field visits to farmers	3.71	0.84	8 th
Regular and timely attendance to FNT an MRTM	3.96	0.74	1 st
Contributions during FNT and MRTM	3.83	0.88	3 rd
Diagnosis and profering of solution to field problems	3.81	0.92	4 th
Knowledge of subject matter	3.74	0.76	5 th
Establishment of eight SPATs in a month	3.53	0.88	15 th
Distribution of SPATs in all the sub-circles	3.69	0.82	9 th
Establishment of SPAT of three various components-crops, fisheries, livestock, agro-forestry and land management in each sub-circle	3.60	0.83	14 th
Establishment of SPATs within the farmer's farm	3.72	0.94	7 th
Having equivalent check plot for SPATs	3.66	0.88	10 th
Proper location of SPATs, example, for crop not under shade and for livestock not in the open	3.72	0.88	6 th
Holding of a field day in a month	3.65	0.89	11 th
Making of report on field day	3.63	0.95	12 th
Motivating contact farmers/farmer groups to adopt different technologies in each sub-circle	3.60	0.89	13 th
Keeping of diary containing primary, self-recorded information on his/her village/ field visits	3.92	0.92	2 nd

Grand mean =3.78

Source: Field Survey, 2015.

Table 10 presents the job performance of the extension agents in the study area ADP. Each Block Extension Supervisor rated the job performance of the extension agents under his/her blocks. The grand mean for job performance of the extension agents in South Eastern part of Nigeria State ADP was 3.78. The table reveals that extension agents were rated highest on Regular and timely attendance to FNT an MRTM by their immediate supervisors (X=3.96). Followed by this was Keeping of diary containing primary, self-recorded information on his/her village/ field visits (X=3.92). This was also followed by contributions during FNT (MT) and MRTM (X=3.83), the least job performance items that was rated by the block

extension supervisors on the extension agents are: living within his or her circle ($X=3.47$) and Establishment of eight SPATs in month ($X=3.53$)

It could be inferred from these findings that the respondents may have the desired competency needs related to extension services, which resulted into high level of job performance. However, the job performance items with low means can be attributed as result of the rural area not being conducive for the extension agents, thus this leading to poor performance of extension agents activities. This study tallies with the results from a study by Asiabaka (1992) and Ekumankama and Anyanwu, (2007). Also results of Okereke and Onu, (2007) on the job performance of extension agents in Imo state shows high level of job performance.

4.9 Overall Job Performance Score

Table 11: Distribution of respondent Overall Job Performance Score

Range of Scores	Number	Percentage
Very Low	0	0
Low	31	11.0
Moderate	189	66.8
High	63	22.3
Total	283	100

Note. Scale: 1 = Very Low; 2 = Low; 3 = Moderate; 4 = High; 5 = Very High

Source: Field Survey, 2015.

The scores of all 16 job performance items were summed in table 11 to get in general job performance level of the respondents in the study area. The overall job performance score on this scale range from 16 being the lowest to 80 being the highest. The overall job performance score ranged from 16 to 80 with the mean value of 3.78 on this scale. The distribution of respondents' overall job performance scores in quartiles is summarized in Table 11. The respondents were distributed between 2nd quartile and 4th quartile. On the other hand, the majority (66.8%) of the respondents had moderate level of job performance.

4.10 Barriers to Acquisition of Needed Competencies

Table 12: Distribution of Respondents' according to Constraints against Acquisition of Needed Competency

Constraints	Mean	SD	Ranking
Increased workload	3.24	1.45	11 th
Inadequacy of time	2.59	1.17	13 th
Increase in personal costs related to acquire competency	3.23	1.34	12 th
Inadequacy of incentives for acquiring competencies	3.92	1.20	4 th
Inadequacy of training opportunities	3.89	1.05	5 th
Ineffective training delivery methods	3.58	1.14	8 th
Inadequacy of organizational support	3.70	1.15	7 th
Inadequacy of educational resources	3.51	1.20	9 th
Inadequacy of credible information	3.38	1.18	10 th
Inadequacy of personal motivation	3.86	1.04	6 th
Inadequacy of funds	4.05	0.87	3 rd
Bad Road	4.36	0.92	1 st
shortage of time	4.12	1.02	2 nd
Grand	3.65		

Note. Scale: 1 = strongly disagree; 2 = Disagree; 3 = Undecided; 4 = Agree; 5 = Strongly Agreed.

Source: Field Survey, 2015.

Table 12 shows the means and standard deviations (SD) of thirteen constraints against acquisition of needed competencies of extension agents. The barriers for acquiring competencies were identified by listing commonly identified constraints and asking respondents to rate them on a five point Likert scale ranging from one being strongly disagree to five being strongly agreed. From the table 12, the overall mean is 3.65. A mean of greater than 3 indicate that those are considerable barriers.

Bad road network (Mean=4.36), shortage of time (Mean=4.12) and inadequacy of funding (Mean=4.05) were identified as the most important barriers for acquiring competencies. Increase in personal costs related to acquire competency (Mean=3.23), and shortage of credible information (Mean=3.38) were the least barriers.

Few of the respondents listed additional barriers that limit their ability to acquire desired competencies. The other barriers the respondents listed were insufficient compensation for the most exceptional workers in the organization, unjustifiable evaluation system, incompetent management and inability of administration to solve problems, absence of supervision or managerial coaching, lack of quality teaching materials to meet the client needs, training contents, irregularity of the administration about required skills, increased pressure with too many expectations, family commitment, and the training focused only on new agents. A few respondents indicated that inadequate of communication between new and experienced agents have become a barrier for new agents to acquire desired competencies rated above average. Insufficient funds to sponsor the proper planning design and implementation of extension agents training to acquire these related competencies lead us to poor performance of extension agents' activities and delivery of innovation to farmers.

4.11 TESTING OF THE HYPOTHESES

This section presents the tests of relationship between the dependent and the independent variables. The dependent variable is the job performance of the extension agents, while the independent variables were competency needs and socio economic characteristics of the extension agents. Other variable associated with job performance of the extension agents were constraints faced by the extension agents to acquire needed competency.

4.11.1 HYPOTHESIS ONE

H₀₁: There are no significant effects of socio-economic characteristics on competency level of extension agent across the south eastern states of Nigeria.

Table 13: Result of Regression Analysis showing the effects of socio economic characteristics of the Respondents on competency level

Competency	B	Std. Error	t-value	P-value
Age	20.097	3.786	5.308	.000***
Gender	32.894	3.563	9.233	.000***
Marital Status	64.620	4.003	16.145	.000***
Level of Education	1.142	4.730	.242	.809
Distance from their residences to their circles	14.097	5.016	2.810	.005*
Income	24.465	4.319	5.665	.000***
A	2.272	4.157	.547	.585
Years of extension	-1.622	4.809	-.337	.736
R=0.963	R ² =0.928		F=444.03	P-value=0.001

Source: Data Analysis (2015)

***: Significance at .01

**: Significance at 0.05

*: Significance at 0.10

Table 13 shows the result of regression analysis on some selected socio economic characterises effects on competency needs of the extension agents in the study area. The R²=

92.8% gives the overall percentage variation and also, explain the joint contribution of socio economic characteristics on competency needs. In light of the multiple regression models, five predictor variables were found to be significant on competency needs of the extension agents. The five socio economic characteristics variables were age ($t=5.308$, $p=0.000$), gender ($t=9.233$, $p=0.00$) marital status ($t=16.145$, $p=0.000$), distance to work ($t=2.810$, $p=0.005$) status and income ($t=5.665$, $p=0.0001$). The study implies that some socio economic characteristics are essential to the competency need of the extension agents in the study area. Thus, the null hypothesis that no significant effect of the socio economic characteristics on competency needs of the extension agents is hereby rejected and the alternative hypothesis ($H_A:1$) is upheld in respect of significance of age, gender marital status, distance to work and income on competency needs.

To compare the strength of this coefficient to the coefficient for another variable, it can be referred to the column of Beta coefficients as known as standardized regression coefficients. As illustrated in Table 13 the largest Beta coefficient is 64.620 which is for Marital Status. This suggests that one standard deviation increase in marital status leads to 4.003 increase on competency level. This finding confirms the results of previous research conducted by Okereke and Onu (2008) that marital status predicts extension workers' competency level.

The Beta value for Gender is 32.894 is the second highest, followed by Beta value for income 24.465 and Age 20.097 third and fourth respectively, This result confirms the study carried out by Adesiji (2006) that showed Age of extension workers is positively related to competency level ($r = 0.68, p = 0.05$).

The Beta value for years of extension services -1.622 is the smallest and indicating that it made the least contribution to competency level of extension agents. Adesiji (2006) has also reported that competency of extension workers is positively related to length of services in

extension work ($r = 0.84$, $p = 0.05$). The acquisition of competencies should be considered as an important part of the worker's performance (Boyd, 2003). A long term professional development plan can be prepared by helping Extension agents to conduct self evaluation in the early years of service to ensure development of the desired sub competencies (Owen, 2004).

4.11.2 HYPOTHESIS TWO

H₀₂: There is no significant effect between the competency level and job performance of the extension agents.

Table 15: Result of Linear Regressions Analysis showing the significant effect of competencies of the Respondents on Job Performance

Competency Categories	B	Std. Error	t-value	P-value
Teaching methods/ Communications	.378	.214	1.769	.078*
Technical/Subject Expertise	.481	.245	1.963	.051**
Programming Planning	.209	.225	.926	.355
Evaluation	1.789	.194	9.232	.000***
Human Relations	-.268	.214	-1.248	.213
Leadership	.507	.218	2.325	.021**
Computer knowledge / Skills	.466	.227	2.058	.041**
R²=.974 F=1492 P-value=0.001				

Source: Data Analysis (2015)

***: Significance at .01

**: Significance at 0.05

*: Significance at 0.10

The R² (97.4%) in table gives the overall percentage variation in the dependent variables (job performance) as explained by the joint contribution of the independent variables (competency levels). It shows significant effect on the job performance; The R² value of 97.4% implies

that the seven competency needs explain about 97.4% of the variance/variation in the extension agents job performance or 97.4% of the variability of extension agents job performance is accounted for by the competency in the model to test to what degree the research data support the multiple linear regression model of Enter regression method. Based on the method applied, only four predictor variables were found to be significant in explaining job performance of extension workers.

The four predictor variables were Subject Matter/Technical expertise competency ($t = 1.963$, $p = 0.045$), Competency on program evaluation ($t = 9.232$, $p = 0.001$), Competency on Leadership ($t = 2.325$, $p = 0.021$) and competency on Computer knowledge and Skills ($t = 2.058$, $p = 0.041$).

It is therefore probable that some competency of the extension workers needed have a profound influence on the job performance. This results corroborate the findings of Tiraieyari et al., (2010) who reported that four competencies predictor variables as social skill/human relation competency ($t = 2.671$, $p = 0.008$), Competency on program evaluation ($t = 3.769$, $p = 0.000$) and competency on SALM certificate program ($t = -2.172$, $p = 0.031$) have a significant effect on job performance of extension workers. Also, Linder (2001) conducted a study to investigate the association between human resource competencies and job performance of extension agent in which the study reveal that the correlation between the competency and performance was solid and significant.

This suggests that competency needs of extension agents pilot the self-confidence of the agriculture extension agents to manage their job activities, therefore, flexibility and inspiration in order to achieve a remarkable performance. The findings indicate that extension workers are successful because they acquired competencies in one area or more occupational assignment that help them to carry out their job responsibilities well.

Therefore, the null hypothesis that no significance effect between the competencies and job performance of the extension agents is hereby rejected and the alternative hypothesis (HA:1) is upheld in respect of significance of teaching method competency, Subject Matter/Technical expertise competency , leadership competency, computer knowledge and skills, and program evaluation competency on job performance.

To compare the strength of this coefficient to the coefficient for another variable, it can be referred to the column of Beta coefficients as known as standardized regression coefficients. As illustrated in Table 19 the largest Beta coefficient is 1.789 which is for competency on program evaluation.

The Beta value for competency on leadership 0.507 is the succeeding highest competency on the table, followed by subject matter 0.481. The Beta value for computer skills 0.466 is the smallest this indicates that it made the least contribution to job performance of extension agents in the study area. This implies that Program evaluation competency makes the grounded unique contribution to explaining job performance of the extension workers, when the variance explained by all other predictors' variables in the model are controlled. This findings tallies with the results of previous research conducted by Tiraieyari et al., (2010) that this competency predicts extension workers' job performance. This finding also corroborates the results of Khalil et al., (2008) in establishing the effects of components of leadership competency on job between performances of extension workers. Where it was reported that leadership competencies ($r = 0.621$; $p < 0.05$) had a slightly positive and significant relationship with extension worker's job performance.

4.11.3 HYPOTHESIS THREE

H₀₃: There is no significant effect of socio-economic characteristics on job performance of extension agents in the study area.

Table 14: Socio Economic Characterizes of the Respondents Impacts on Job Performance

Job Performance	Coefficients		t-value	P- Value
	B	Std. Error		
Age	3.399	2.006	1.695	.091
Gender	3.241	1.840	1.761	.079
Marital Status	40.782	2.097	19.447	.000
Level of Education	2.681	2.195	1.222	.223
Distance to their circles	7.067	2.002	3.530	.000
Income	12.315	2.163	5.694	.000
Membership of Organization	-2.329	2.169	-1.074	.284

f=556.8 p-value=0.001 R²= 85.4%

Source: Data Analysis (2015)

***: Significance at .01

**: Significance at 0.05

*: Significance at 0.10

The results of the Regression analysis in Table 14 shows that, marital status (t= 19.447 p=0.0001), distance to the respondents working place (t=3.530, p=0.0001) and income (t=5.694, p=0.0001) have significant influence on the job performance of the extension agents in the study area as summarized in Table 14. The R²= 85.4% gives the total percentage variation as joint contribution of socio economic characteristics on job performance of extension agents. This implies that the income, distance to circles and marital status of the extension agents have effect on their job performance. This could be as a result be of paying higher salary on time to the extension agents, also when the extension agents live within their circles or close to their working place there is every tendency that their job performance will

surely have a great impact on farmers. The findings contradict the study conducted by Okereke and Onu (2008) on job performance of extension agents in Imo state who reported that age and years of experience have impacts, but collaborated with the findings on marital status. Therefore, the null hypothesis that there is no significant effect between the socio economic characteristics and job performance of the extension agents is hereby rejected and the alternative hypothesis (HA: 1) is upheld in respect of significance of marital status, distance and income on job performance.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

This chapter presents the review of the preceding chapters, specifically the research questions, objectives, and the major findings of the study. Conclusion and recommendations have been drawn based on the results of data analyzed and the study objectives, while suggestion on area for further study has been included.

5.1 Summary

In this era of globalization, competency is an issue of concern to any field of professionalism and their clients. Competency is an integrated set of skills, knowledge, and attitudes that allow one to effectively carry out the activities of a given work to the standards expected in the employment context. Thus, the competency of an employee determines his/her level of job performance. Therefore, there are some of the competencies that could influence extension agents' job performance in agricultural extension services and some of these competencies were acknowledged in the literature.

1. What are the socio-economic characteristics of agricultural extension agents in the study area?
2. What are the competency levels of extension agents in the study area?
3. Does the competency level of extension agents vary across the states?
4. What are the levels of job performance in extension as perceived by the extension agents?
5. What are the constraints to the acquisition of needed competencies?

The study was focused on determining the impacts of competencies on job performance of extension agents in south eastern part of Nigeria.

A total of 283 respondents, were randomly selected. Data collection was made with the administration of questionnaire in the study. Personal interview was conducted with the administrators of extension organizations.

The pre-testing, validity and reliability test of the data collection instruments were undertaken with the questionnaire. This was pre-tested on 20 randomly selected respondents from the population that do not include the respondents used in the study. A reliability correlation coefficient of 0.824 obtained was considered high enough to accept the questionnaire for the study. The data collection process was accomplished through field survey technique among the sampled respondents in the study area. The instruments were administered between January and April 2015. The actual collection of data was with the assistance of field officers (agents) of ADP after the written permission was granted.

The data collected were coded and analyzed using the SPSS (Statistical Package for Social Sciences) Computer package. The data were coded and subjected to statistical analysis as follow:

- (1) Descriptive statistical analysis involving frequency counts, percentages, and means
- (2) Inferential statistical measures involving
 - (b) Regression Analysis to test hypotheses 1, 2 and 3.

5.2 Summary of Major Findings

5.2.1 Personal/Demographic Characteristics

Age: 46-3% and 40-3% of respondents were within the age bracket of 41 – 50 and 31-40 years respectively, while 7.8% and 5.7% of respondents were within the age bracket of 51 - 60years and less than 30 years respectively.

Gender: 53.7% of respondents were females while 46.3% were males.

Marital Status: Majority (83.4%) of the respondents were married.

Level of Education: Literacy level was found to be quite low among the respondents. Only 7.1% had senior secondary school certificates, 44.2% had ordinary National Diploma certificates, 25.4% had certificate of college of Agriculture, 20.5% had Higher National Diploma/Bachelors of science degree certificates, while 2.6% had Masters Degree certificates.

Income: 34.6% of the respondents earn 600,000 – 800,000 Naira per annum, 35.0% earn 400,000 – 600,000 per annum, while 30.4% earn less than 400,000 per annum.

5.2.2 Work Related Characteristics

Distance from Place of Residence to their Circles: Half (49.5%) of the respondents live within less than 5 kilometres to their work place; 23.7% live 6-10km away to their various work place, 14.8% live 16-20 kilometres away to their place of primary assignment while only 2.5% live 21-25 kilometres away from their working place.

Years of Experiences in Extension Services: 25.4% of the respondents have been engaged in extension service system for up to 5 years and below, 30.7% engaged within a period of 6-10 years in extension works, 23.3% have engaged within a period of 11-15years while only about 6.7% had engaged within a period of 21years and above.

Membership of Extension Organizations: More than half (59.4%) of the respondents belong to one extension organizations or the other, while 40.6% do not belong to any extension organization.

Attendance of Training before Joining Extension Work: 6.1% of the respondents attended training before joining extension service work, while 38.2% did not attend any form of training before joining.

Education Method to Develop Competency: 39.8% agreed that small group, face-to-face training workshops are the most excellent method to educate trainee on competency needs for effective job performance, 20.8% chose large group, face-to-face training workshop. 14.3% went for printing of learning materials, while 12.5% selected online programs as the best method.

Preferred Time to Acquire Competency: 48.3% of respondents agreed that In-service training, such as Fortnight Extension Training, is the most preferred time to train extension agents on competency, while 26.4% agreed that training of extension agents on competency should be done before joining the extension organization.

Objective 1: Competency level. The five highest levels of sub-competencies were: Using evaluation results (M=3.75), Prepare an annual plan of work for area of responsibility (M=3.72), Conduct regular extension meeting to create awareness (M=3.6820), Utilize effective teaching methods (M=3.67), and identification of research-based information (M=3.61) while the five lowest levels of sub-competencies were: analyze data through statistical package (M=1.39), handle hardware (M=1.48), manage basic computer (M=1.604), use internet search site (M=1.6325), and answer farmers' questions through email (M=2.05). In the major competency category, respondents possessed high competency in six out of the seven major competencies. These include: teaching/Communication, programme planning, evaluation, Technical/Subject Matter Expertise competency and leadership competencies.

Competencies of most Training Needs: In the area of training, data is analysed through statistical package for social science ($X=1.40$), Handle computer hardware problems ($X=1.50$), Manage basic computer programme ($X=1.60$), Use internet search site ($X=1.63$), Answer farmers' questions through email ($X=2.05$), Manage Conflicts ($X=3.23$), Understand relationship of personal goals to job performance ($X=3.31$), Apply relevant subject matter to real life problems ($X=3.34$), Identify appropriate delivery strategies ($X=3.35$), Method demonstration/latest communication methods to teach ($X=3.37$), Develop trusting professional relationships ($X=3.39$) are competencies of most training needs.

Overall Competency Score: The respondents were spread among 2nd quartile as well as 4th quartile. Though, the majority (59.3%) of the respondents were in the 3rd quartile (106 to 140).

Objective 3: Competency Level across the States: On competency levels across the states, Ebonyi and Abia states perceived teaching competency as the most needed competency, followed by program planning by Ebonyi and Technical/Subject Matter Expertise by Abia second respectively. Also, Enugu and Imo states rated program planning as highest respectively, followed by evaluation of extension works by the two states. Respondents from Anambra state rated evaluation of extension activities highest followed by leadership competency.

Job Performance of Extension Agents: On the recent job performance levels of the extension agents in the study area, Regular and timely attendance to FNT an MRTM by their immediate supervisors ($X=3.96$), Keeping of diary containing primary, self-recorded information on his/her village/ field visits ($X=3.92$) , contributions during FNT (MT) and MRTM ($X=3.83$), were rated high by the block extension supervisors on the extension agents, while living within his or her circle ($X=3.47$), Establishment of eight SPATs in month ($X=3.53$) were rated low.

Barriers to acquisition of needed competency: On the barriers militating against the acquisition of needed competency, Bad road network (M=4.36), shortage of time (M=3.12) and Inadequacy of funding (M=4.05) were identified as the most crucial barriers for acquiring competencies. Increase in personal costs related to acquire competency (M=3.23), lack of time (M=3.24), and shortage of credible information (X=3.38) were the slightest constraining barriers.

5.2.3 TESTING OF STUDY HYPOTHESES

1. Age, gender, marital status, distance to work and income were established to have significant sound effects on competency needs of extension agents.
2. Income, distance to the place of work and marital status of the extension agents were found to have significant effects on their job performance
- 3 The four predictor variables: Subject Matter/Technical expertise competency, competency on program evaluation, competency on Leadership and competency on computer knowledge and Skills have significant effects on job performance of extension agents and thus, needed for effective job performance of extension agents.

5.3 Conclusions

This study objective to determine the competency needs of extension agents for effective job performance in the south eastern Nigeria, based on the findings of the study, the following conclusions were drawn:

The extension agents in the South Eastern part of Nigeria are still young in age and are still in their productive and vibrant stage of life. There are higher percentages of female extension agents in the study area than male. A review of the distribution of academic qualifications shows that the Agricultural Development Project offices in the area employed a well educated group of extension agents and have put in more years of service in extension work. However, these extension agents received less than fifty thousand naira per month.

A review in participation of various extension organization shows that most of the extension agents do not belong to any form of extension organization but they had attended one form of training or the other before joining the extension work. Among the 35 sub competencies, extension agents were most confident in their ability to conduct regular extension meeting to create awareness. The sub-competency that extension agents were least confident in was Manage basic computer programme. There are variations in competencies ratings across the states. Some states rated some competencies high, while others rated same competencies low. However, computer skills/knowledge was rated low across the states.

A multiple linear regression analysis was performed to explain the effects of competency categories of extension agents on job performance, a significance of teaching method competency; Subject Matter/Technical expertise competency, leadership competency, computer knowledge and skills, and program evaluation competency were found on job performance.

It can therefore be concluded that, Subject Matter/Technical expertise competency, leadership competency, computer knowledge and skills, and program evaluation competency have a strong influence on job performance of extension agents among the seven competency categories in the study area

5.4 Recommendations

Extension agents should acquire the essential competencies to meet the rising trends in the field of agriculture, and deliver excellence educational programs of pertinent to farmers. In order to meet the challenges and increase their performance rate as revealed by the research, the following recommendations are made:

1. Extension agents have a good understanding of the wide range of specific extension competencies required of them, even though they differed somewhat in their observation of the priorities of these competencies. The south eastern states should,

therefore, prioritize these competencies for the extension agents and review such priorities periodically and regularly. Agricultural Development Projects offices should pay attention to the crucial competency categories rated highly to enhance the effectiveness and impact of extension work.

2. Since government cannot hands-off its responsibility in extension provision, training and re-training programme for extension agents should be frequent, in order to ameliorate the quality of staff. Also, periodic review of realistic competencies and updating the felt-need competencies should be done for efficiency of their jobs.
3. Extension agents should encourage themselves to upgrade their educational qualifications so as to make them more competent in the discharge of their duties. In particular, those with Secondary School Certificates, Certificate of College of Agriculture, and Ordinary National Diploma Certificates should be encouraged to upgrade their degrees.
4. Extension workers should be given ample opportunity to attend refresher courses, seminars, workshops and other short trainings, most especially, in the areas of information technology and transfer of knowledge in the study area. The Agricultural Development Projects can partner with Universities and Research Institutes in the catchment areas to organize such refresher courses.
5. Extension agents should reside in their various circles in order to speed up communication, understand their clientele and also to reduce the distance of their place of residence to their various circles, therefore, enhancing their job performances in extension works.
6. Extension agents need to be motivated by putting into consideration their welfare, also their promotion need to be reviewed positively; this will create a good job performance atmosphere.

7. It is important to make light of the major barriers that prevent extension agents acquiring needed competency for effective job performance. The major barriers such as increased work load, inadequate of time, inadequate of funding and inadequate of incentives for acquiring competency, should be properly addressed to ensure that Extension agents have opportunities to develop desired competencies.
8. Face-to-face, in-service training workshops with small groups should be used as the most effective delivery method for helping extension agents acquire the needed competency for effective job performance. Utilization of two or more educational delivery methods complementing each other is encouraged to achieve the effectiveness of in-service training programs.
9. Training for extension agents in south eastern part of Nigeria should focus on, subject matter/technical expertise, computer knowledge and skills, and programme evaluation competencies were the extension agents rated high level of competency needs.

5.5 Suggestion for further studies

There is a need to review practicing competencies for the relevance of existing ones to identify out-of-date competencies. Identification of recent competency needs for successful job performance of extension agents is needed to update competency values in order to improve the job performance of Extension agents and thus, improving the agricultural productivity of rural farmers.

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UNIVERSITY OF ILORIN, ILORIN
FACULTY OF AGRICULTURE

**DEPARTMENT OF AGRICULTURAL EXTENSION AND RURAL
DEVELOPMENT**

QUESTIONNAIRE

**TITLE: DETERMINATION OF COMPETENCY NEEDS ON JOB PERFORMANCE
OF EXTENSION WORKER IN THE SOUTH EASTERN NIGERIA**

Dear Respondent,

This questionnaire is designed to collect relevant information on the above topic. Kindly supply all information required as accurately as possible. Please be assured that information collected will be used for research work only and will be treated with absolute confidentiality. Thank you for your anticipated cooperation.

INSTRUCTION: Kindly fill in the gap where necessary and tick as appropriate.

Section A: survey identification

- 1. Questionnaire Number:**
- 2. State:**
- 3. Name of ADP Zone:**
- 4. Local Government Area covered:.....**
- 5. Name of Block:**
- 6. Date of Interview:**

SECTION B: SOCIO-ECONOMIC INFORMATION OF RESPONDENTS

- 7. Age of the respondents..... (yrs.)**
- 8. Gender: Male () Female ()**
- 9. Marital status: Single () Married () Widowed () Divorced ()**
- 10. Religion: Christianity () Islam () Traditional Religion ()**

11. Level of education: Secondary school certificate () Certificate of colleges of agriculture () OND () HND/Bachelor degree () Master degree () Others, Please specify.....
12. What is your job position: Zonal Extension Officer () Block Extension Supervisor () Block Extension Agent () Extension Agent () Others, please specify.....
13. In what aspect of Agriculture did you specialized?
14. What is your distance from place of Work? (Kilometres)
15. Did you attend any training in extension education before becoming an extension worker? Yes () No ()
16. If your answer to question 15 is yes, please list the training: i.....
ii..... iii.....
17. What is your current Income per annual..... (Naira)
18. What is your major area of responsibility? Agriculture () Community Development () Others, please specify
19. Are you a member of any Professional Association? Yes () No ()
20. If your answer to question 19 is yes, please state the name of the Association.....
21. How many years have you been working as extension workers? (Yrs.)

SECTION B: Identification of Competencies of Needed for Extension Agent

22. Please kindly rate your competencies on the items stated blow based on the following rating: VL= very low, L=low, M= moderate, H= high, VH= very high.

SN	STATEMENT	VL	L	M	H	VH
	Teaching methods/ Communications competency					
1	Conduct regular extension meeting to create awareness					
2	Method demonstration/ latest communication methods to teach					
3	Make clear and convincing oral presentations					
4	Demonstrate benefit of adoption Conduct group discussion					
5	Conduct regular meeting/training to introduce new discoveries					
	Technical/Subject Matter Expertise competency					
11	Apply relevant subject matter to real life problems					
12	Explain relevant subject matter					
13	Identify research-based information					

14					
15	Identify appropriate delivery strategies				
16	Demonstrate technology skills pertinent to subject matter				
	Programming Planning/				
17	Utilize effective teaching methods				
18	Understand basic components of educational programming				
19	Acquire teaching resources for your subject area				
20	Prepare an annual plan of work for area of responsibility				
21	Recruit and manage volunteers				
	Evaluation competency				
22	Evaluate extension program and farmers				
	Conduct needs assessments program				
	Prepare evaluation report				
	Writing programme objectivities				
	Using evaluation results				
	Human Relations competency				
35	Develop trusting professional relationships				
36	Provide consultation to clientele groups				
37	Establish relationship with subject matter specialists and peers				
39	Understand diversity in extension				
40	Manage conflicts				
	Leadership competency				
41	Apply critical thinking skills				
42	Understand relationship of personal goals to job performance				
44	Understand workgroup dynamics				
45	Nurture leadership skills in others				
46	Develop a plan for building personal leadership skills				
	Computer knowledge / Skills				
48	Answer farmers question through email				
49	Use internet search site				
50	Handle hardware problems				

51	Analyse data through statistical package for social science					
52	Manage basic computer programme					

23. In addition to the above list, what are the other competencies you consider as very important

for someone to be an effective Extension agent in current context? (Please list all you consider.)

- i.
- ii.
- iii.
- iv.
- v.

24. In your opinion, what is the most appropriate time for someone to acquire important extension competencies?

- i. Before joining with Agricultural Development Programme ()
- ii. New Extension agents' training ()
- iii. During in-service training ()
- iv. Other (Please specify).....

25. What do you consider as the most effective educational delivery method in helping Extension Agents gain important competencies?

- i. Small group, face-to-face training workshops ()
- ii. Large group, face-to-face training workshops ()
- iii. Printed learning materials ()
- iv. Electronic learning materials such as educational programs saved in CD ()
- v. Online training programs ()
- vi. Others (Please specify).....

Section C. Barriers to acquisition of needed competencies of extension workers

26. Please provide a rating of the following as it affect the barriers of needed competencies of extension agents in south east. SD= strongly disagree, D= disagree.

U= undecided, A= Agreed, SA= Strongly agreed

S/N	Items	SD	D	U	A	SA
1	Increase workload					
2	shortage of time					

3	Inadequate of funding					
4	Increase in personal costs related to acquire competency					
5	Inadequate of incentives for acquiring competencies					
6	Inadequate of training opportunities					
7	Ineffective training delivery methods					
8	Inadequate of organizational support					
9	Inadequate of educational resources					
10	Inadequate of credible information					
11	Inadequate of personal motivation					

27. Please list other barriers that you consider that limit your ability to develop desired Competencies

- i.
- ii.
- iii.
- iv.
- v.

SECTION D: Determination of Job Performance of Extension Agents

28. Please, kindly indicate the extent to which the extension agents (.....) perform his/her job functions based on the following ratings: VL= very low, L=low, A= Average, H= high, VH= very high.

S/N	ITEMS	VL	L	A	H	VH
1	Living within his/her circle					
2	Regular and timely field visits to farmers					
3	Regular and timely attendance to FNT and MRTM					
4	Contributions during FNT and MRTM					
5	Diagnosis and profering of solution to field problems					
6	Knowledge of subject matter					
7	Establishment of eight SPATs in a month					
8	Distribution of SPATs in all the sub-circles					
9	Establishment of SPAT of three various components- crops, fisheries, livestock, agro-forestry and land management in each sub-circle					
10	Establishment of SPATs within the farmer's farm					
11	Having equivalent check plot for SPATs					
12	Proper location of SPATs, example, for crop not under shade and for livestock not in the open					
13	Holding of a field day in a month					
14	Making of report on field day					
15	Motivating contact farmers/farmer groups to adopt different technologies in each sub-circle					
16	Keeping of diary containing primary, self-recorded information on his/her village/ field visits					