

DETERMINANT OF EXTENSION WORKER COMPETENCIES AND SELF-HELP GROUP (SHG) PERFORMANCE IN NORTH EAST NIGERIA: CRITICAL LITERATURE REVIEW

By

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Abstract

Food production and attainment of food security has become one of the important components of sustainability in North-East Nigeria, due to incessant attacks on innocent people living in the region by Boko haram. In this context, self-help groups (SHGs) performance was viewed as a national issue in relation to poverty reduction and community empowerment across the globe especially in Nigeria. This paper therefore, using thematic literature review, identified and discusses relevant literature in the area of extension worker, competencies needed in extension work and self-help group performance in food production. From the review, it was discovered that SHG member participation has immensely facilitate increase in food production in rural and semi-urban communities. The paper concludes that competencies of extension worker is the major determining factor for their effectiveness in boosting food production through SHGs approach. SHG members' participation is among the most essential component for their empowerment, but low competencies from the part of their facilitator may hamper objective attainment of the SHG.

Keywords: Competencies, Extension Worker, Performance, Self-help groups

Introduction

The global demand for food is increasing every now and then as a result of rapid increase in population. World population will exceed 9.7 billion people by 2050, an estimated increase of about 2 billion people over the current population. According to the Food and Agriculture Organization (FAO) of the United Nations, there is a need to increase agriculture and food production by 60 percent to meet future food demand (GSADP, 2017). We live in a world dominated by global forces, new scientific discoveries, changing demographics, shifts in socio-economic characteristics, rapidly changing consumption patterns, and interdependence in global markets (FAO, 2020). Food production efforts by both individuals and groups are subjected to these changes and forces. New technologies and practices originating in research institutions, adapted by peer farmers or advanced by agribusiness organizations are changing the agricultural sector in countries

throughout the world. Such changes, when positive, could have a bigger impact if complemented by effective extension services. A challenge for agricultural extension rests in unleashing the creativity of millions of front-line extension workers to disseminate improved technologies and approaches in ways that benefit small farmers and agribusiness operators across the world (Suvedi & Kaplowitz, 2016).

Transfer of technology and development of clients' capacity and potential has been identified as two key factors in ensuring effectiveness of any extension service (Sallam & Akram, 2017). The transfer of technology aims to communicate effectively the result of research to clients and development of clients' capacity and potential through educational activities aims to nurture a self-motivated client who can act voluntarily in their society and able to make rational decisions and solve their problems. The effectiveness of extension services is also

highly dependent on the ability of extension workers who are competent as the whole extension process is dependent on them to transfer information from extension organizations to the clients. Previous studies have identified various competencies needed by extension workers in technical areas and human development areas as well. It was found that these competencies should be possessed by extension workers in order to effectively perform their role (Linders, 2018; Gibson & Hillison, 1994; Cooper & Graham, 2001). However, these studies have not linked competencies to extension workers' job performance. Moreover, few studies have appeared that examined the influence of human development competencies and technical competencies to extension workers' job performance (Khalil *et al.*, 2008; Thach *et al.*, 2008). In view of the above, this paper identified and discusses relevant literature in the area of extension worker, competencies needed in extension work and self-help group performance in food production.

Conceptual Clarifications

Concept of Self-help Groups (SHGs)

The concept self-help group has no agreeable meaning, depending on discipline and area of usage, self-help is used to describe mutual aid, social groups, farmer organization, support groups, cooperative societies, professional-led groups or peer-led groups (Davis, 2018; Othman, 2016; Boyd, 2013; Libaisi, 2010). According to Dennis (1984) self-help group is a collection of individuals that have common vision and mission, share common circumstance, condition, tradition and show sign or familiarity. Ndaaji (2012) view self-help groups as an approach that deals with specific and combined empowerment through improvement in both condition and position. In another dimension, Bashir (2014) reported that self-help is mainly available in health-related issues, especially to the vulnerable. Self-help groups are characterized by initiating and taking charge under limited or no supervision at all (Alfred, 2012), in most cases they emphasize self-reliance and free services.

Moreover, facilitators for Bajoga (2011) defined SHG as a group of likeminded poor women in a community with common objectives of working together for their economic, social and community development. In India, SHGs constitute a widely accepted development strategy for poverty reduction as they are perceived as powerful vehicle for the promotion of micro-credit and micro-finance especially for women (Boyd, 2013). Government and other concern individuals/groups adopt SHG strategy to encourage participation and to act as agents of social change, development and empowerment of women. It is the largest and fastest growing micro-finance program in the developing world (Rivera & Qamar, 2013). SHGs can be viewed as 'Empowerment Model' of development which encompasses all. SHGs have been instrumental in empowerment by enabling women to work together in collective agency. It was reported that SHGs are now emerging as the predominant model for poverty eradication, women empowerment and are used as development agencies (Cox & Miller, 2006). SHGs can also be village-based financial intermediary usually composed of between 10-15 local women. Members make small regular savings as contributions over a few months until there is enough capital in the group to begin lending, and the funds may then be lent back to the members or to others in the village for any profitable purpose (Davis, 2004).

A Self-Help Group (SHG) may be a registered or unregistered group of micro entrepreneurs having homogenous social and economic backgrounds; voluntarily coming together to save regular small sums of money and mutually agreeing to contribute to a common fund and meet their emergency needs on the basis of mutual help (Davis, 2015). The group members use collective wisdom and peer pressure to ensure proper end-use of credit and timely repayment. This system eliminates the need for collateral and is closely related to that of solidarity lending, widely used by microfinance institutions. To make the book-keeping simple enough to be handled by the

members, flat interest rates are used for most loan calculations. Self-help groups are generally started as non-profit organizations or NGOs that have broad antipoverty agendas (Bennett, 1989).

In addition, Abu-Mus'ab (2009) opined that these groups are seen as instruments for a variety of goals including empowering women, developing leadership abilities among poor people, increasing school enrolments and improving nutrition and the use of birth control. The existing literature suggests that the concept of forming SHGs and actively engaging in economic activities would raise income and broaden financial markets by principally providing credit, among other services, to small scale entrepreneurs and thereby reducing poverty (Adams, 1990). This would also lead to clientele empowerment, since microfinance programs have mostly targeted women as clients (Abu Samah & Aref, 2009). For example, in Bangladesh and India, which has about 70 percent of the total population living in rural areas, most of who are poor, SHGs are linked with Banks which holds a critical role in targeting poverty reduction and empowering members socially, politically and economically. Since the concept of SHGs is more than 45 years old, a number of studies have already examined their impacts in empowerment and food production, however, rural communities in Nigeria are yet to feel the impact as expected. Contextually, self-help group refers to a cluster of people who have same ideology, same thought, in some cases same age or gender pursuing same target, they may be in same locality or apart.

Types of SHGs

Groups are mainly formed for a purpose, some assumed the role of being informal, while others are regarded as formal groups. According to Aker (2011) SHGs are mainly informal groups that consist of people who face similar problems or want to solve similar problem. The available SHGs in Nigeria and other similar developing nations are classified in to three (3). This classification depicts their activities and laid down procedures of

operation. They are all voluntary organizations and are backed up by laws of the land for their activities.

- **Social support SHGs** are those that provide free services, in most cases to the rural communities and also facilitate internal development process such as meetings, resolving local conflicts, leadership training, linking up with local development authorities in to facilitate health, education, water supply, agriculture etc.
- **Micro-credit and entrepreneurship** deals with production activities of SHG members and are market driven. The SHG facilitate credit acquisition of members through loans and other means of capital generation. They are also involved in training business managers and creating marketing outlets for export of goods and services. There classical example is cooperative societies in Nigerian communities. In other words, they are business oriented groups that help their members grow with the help of a more professional individual such as extension agent (Benet, 1993).
- **Professional SHGs** are formal groups formed by members of a particular trade or Non-Governmental Organization (NGO) with the purpose of protecting members' interest, welfare and or as a pressure group. This kind of SHG are more common in urban settings and are more organized in terms of funding, rules and regulations. With specific reference to North East Nigeria, all categories of SHGs listed above are present and are working with available public and private extension agents to boost food production in the region.

Functions of SHGs

In North East Nigeria, SHGs has assumed a lot of functions to help salvage the situation of security challenges, poverty, and hunger, and facilitate members' rehabilitation, reconstruction and resettlement due to insurgency, kidnapping, abduction and other security issues (FAO, WFD & IFAD, 2012). According to World Bank (2020) SHGs can

perform higher in reducing poverty, creating employment opportunities and facilitate food sufficiency in ravaged rural communities with the help of professional extension agents. Recent survey by FAO (2020) indicates that, SHGs in Nigeria, are performing the following functions in the area of food production with the help of extension agents.

The functions include forming formidable SHGs with large membership, solving common problems of members, sourcing and distribution of inputs, training on innovative ways of food production and land management, lending loans to SHG members, up taking the produce at prevailing market price, providing psycho-social support to members, initiate and maintain savings within the group, guarantor's to SHG members as collateral, re-construction of destroyed SHG members' properties, women and youth development, societal re-orientation and community engagement, and mobilization towards action. The aforementioned functions are not sacrosanct, in the course of discharging duties, some other functions may arise and be taken care without necessary been part of those listed. In essence, the functions of SHGs in North East, Nigeria has reduced the quantum of government expenditure and also re-build hope among the populace for better internal mechanisms development drive (Van Den Ban & Hawkins, 1996)).

Concept of Extension Worker

The word extension is derived from the Latin roots 'ex' - meaning 'out' and 'tensio' meaning 'stretching'. Stretching out is the meaning of extension. In other words, the word extension signifies an out of school system of education. Extension worker simply means a person involved in a type of education which is stretched out to the people outside school settings and beyond the limits of the educational institutions to which the formal type of education is normally confined.

Extension worker or agent as the case may be is 'any change agent'. Is a professionally trained person in the area of group

management, communication and advocacy. He assumed the role of a teacher, trainer or facilitator depending on the organization or specific task assigned. According to Reddy (1993) extension agent deals with the creation, transmission and application of knowledge designed to bring about planned changes in the behavior-complex of people, with a view to help them live better by learning the ways of improving their vocations, enterprises and institutions. Extension worker is that person scientifically trained to that brings about desirable changes in the behavior of the concerned persons through educational methods, so as to improve their general standard of living with their own efforts (Suleiman & Davis, 2012). Similarly, Belay and Abebaw, (2016) opined that extension workers in both health and agriculture are trained personnel that ensure attitudinal and behavioral change through high level respect of values, norms, interest and other cultural provisions of their clients.

Types of Extension Workers

There are different types of extension agents globally, however, in some context they are classified based on their area of expertise or discipline. According to FAO (2020) there are only two types of extension agents, which are agricultural extension agents and non-agricultural extension agents. In some cases the types are based on administrative arrangement (organogram) which consist of program manager, senior supervisors, coordinators, subject matter specialist (SMS) and village extension agents (VEA). In addition, in whatever capacity the categorization is based on the strata at which they operate and specific functions to be perform for the SHGs and the community needs.

Characteristics of Extension Workers

Scholars and practitioners have proposed many areas of core competencies for agricultural extension workers (Cooper & Graham, 2001; Scheer et al., 2006). It seems that nine areas of professional core competencies adequately address the needs of

demand-driven, decentralized, pluralistic and participatory extension systems, they are:

- **Plan well:** An extension worker needs to be able to plan a program meticulously. Expanding participation not just in terms of numbers but also participation by different groups within a village and publicizing the meeting or field experiment are essential. While planning an extension program, an extension worker should know who the beneficiaries and stakeholders are, what resources are available, what national agricultural strategies are in place and where the emphasis of the government is. Doing a needs assessment, especially involving the poor and female farmers and young people, can fine-tune a program to meet local needs.
- **Coordinate and collaborate to implement:** Effective extension workers are able to implement extension programs by coordinating activities and collaborating with development partners within their assigned area or communities by building teamwork, involving local stakeholders and negotiating when conflicts arise. Reaching and involving members of marginalized groups such as women and members of minority groups in innovations through the participatory method is another important skill that extension workers should practice. Touch and feel never fail, so it is effective to allow local people (farmers) to try their hands in the field so they feel confident to adopt new technologies (equipment, inputs, etc.) when the extension worker is not around.
- **Be Humble:** Farmers already know a lot about their farming system, and you as an extension worker need to respect this. You are in the field to serve farmers' interests and further their aspirations, so find out what they know and build on that. If you seem to be a "know-it-all," there is little chance that SHG member will express herself/himself.
- **Communicate Confidently:** An extension worker has to be a good

communicator so that he/she is able to persuade people to change their methods of cultivation or adopt innovative practices or technologies. It is no simple task. An extension worker should effectively listen to what his/her audience says and use language and content that members of the target groups can understand. Learn and practice well so all doubts are taken care of before you reach the audience.

- **Build Public Relations:** The next stage of good communication is public relations. You need to be able to build good relationships and rapport with people so they are comfortable to talk to you, ask questions and believe you. The stronger the relationship and feelings of trust, the quicker the adoption of the recommended technology and practices.
- **Value the Diversity:** A village has multiple identity groups in terms of wealth, ethnicity, caste, language, tribe, etc. An extension worker has to be sensitive toward these to ensure that a program appeals to a wide audience containing many identities and does not conflict with any religious/cultural belief or tradition. A Muslim farmer, for instance, might resist rearing a pig for religious reasons; tribal farmers might resist adopting a new crop variety because a traditional variety is being cultivated there. These points need to be taken into consideration when planning and delivering extension services.
- **Acquire Educational and Informational Communication Technology:** Information communication technologies (ICTs) such as mobile phones, texting, conference calls, computer, Internet, email, etc., are increasingly being used in extension services. The ICTs are effective in reaching a large number of users in a short time (Aker, 2011). An extension worker should acquire knowledge and spread these technologies and the knowledge to use them among local people.

- **Evaluate to Show Results:** Resources are limited, and there is always competition for resources. The government and funders tend to give priority to those programs that can show that they have succeeded in reaching and benefitting previously unreached groups. An extension worker has to become aware of the programs launched in his areas and evaluate their success to avoid repeating others' mistakes and learn what did work.
- **Update Knowledge:** What one communicates depends on what he/she knows, so an extension educator should be aware of relevant research happening in various parts of the country, or even around the world, to be able to address the farmers' real needs. Spending time on reading up on recent research can help you choose technologies and practices that are well-suited to the local environment and people, and sustainable over the long term. As we explained earlier, extension educator competencies are generally classified into two groups: technical skills and competencies such as knowledge and skills in pest management, soil testing or fertilizing a field crop; and process skills and competencies that help extension workers perform their tasks well. Process skills are also called soft skills.

Extension Models

There are several extension models in the literature. However, Bennett (1989) describes three generic models of extension: Research transfer model or Transfer of Technology (TOT), adult education model (HRD) or farm first and interdependence model of extension.

Research Transfer Model or Transfer of Technology (TOT): According to this model extension workers' role would be transfer of technology from research agencies to the farmers. Major criticism of this view lies in the fact that too much emphasis is given on the transfer of technology with little or no concern at all to the recipients of technology.

Adult Education Model (HRD) or Farm first: Focuses of this model is on the

educational activities to develop farmers' potentials and capabilities. Extension workers empower individual farmers to make rational decision (Benet, 1993).

Interdependence Model: This model encompassing the (TOT) and (HRD) and it has been identified as key factors in ensuring effectiveness of extension services. Interdependence model of extension combine the perspective of extension held by HRD and TOT models (Bennett, 1989). The TOT means to communicate effectively the result of research to the farmers. HRD focuses on the educational activities to nurture a self-motivated client who can act voluntarily and rationally based on his/her own decision and who has a sense of self-responsibility and social responsibility.

The goal of extension is unleashing the potential of clients and developing their capabilities to their full potential. To ensure effectiveness of extension work, the TOT and HRD should be together in implementation of extension services and activities by extension workers. According to this model, extension disseminates information about the adoption of specific practices to the farmers. Furthermore, extension goes beyond the role of transferring information about the adoption of specific practices.

Extension service helps SHG members make decisions by enabling them to employ effective processes in decision making and problem solving. Extension's role is strengthening farmers' decision-making processes (Bennett, 1989). The model suggests that extension has a comparative advantage in performing the role of education farmers rather than the role of transfer of technology itself. Furthermore, this model helps to understand the transfer of technology and to develop clients' capacity and potential as two main roles of extension workers. Therefore, extension workers need certain competencies in technical area and human development area in order to perform their responsibilities and activities well. It's important to note that this study is based on

the interdependence model of extension that encompassing transfer of technology and development farmers' capacity and potential as key factors in ensuring effectiveness of extension services and extension workers' roles.

Principles of Extension Work

The philosophical background and existing reality suggest that extension services rendered to SHG members in the area of food production should be treated as planned educational activity for overall development with the use of available resources. No extension professional can afford to treat this as a random affair. In addition, both formative and summative feedback mechanisms must align with the present realities to ensure each and every component is captured as at when due. FAO (2020) highlighted principals of extension to include principle of peoples need and interest; principle of grass root level organization; principle of cultural difference; principle of cooperation and peoples participation; principle of cultural change; principle of learning by doing; principle of trained specialists; principle of adaptability in use of extension teaching methods; principle of leadership; principle of whole family approach; principle of evaluation; principle of satisfaction; principle of indigenous knowledge. Although, these principles are conventional in extension service delivery, however, SHG members may have different culture, norms, values, needs and interest, but when it comes to food production, there is universality in acceptance to work together and also the flexibility of the principles may help in realizing the basic objectives of the SHG in place.

Roles of Extension Workers

Extension services, today, are not limited to plant and livestock production. Extension agents perform many roles in the communication process between the extension organization and the target audience. In this respect, the extension agent must evaluate each case separately and assume an appropriate position or role

accordingly. They can apply various extension strategies that can affect the knowledge, information, attitudes, and behaviour of the target audience towards change. According to Davis and Sulaiman, (2014) the extension agent is the person who influences the innovation decisions of the target group following the requests of an extension organization. The extension organizations often strive to ensure that farmers adopt new ideas and these ideas are diffused to large communities. However, an unsuccessful extension agent may prevent or slow down the diffusion of innovations by not establishing useful communication links with farmers and not applying the right extension methods. The ultimate goal of extension systems is to create an environment in which target farmers can help themselves in the long term and bring the job to a situation that does not require extension personnel.

Thus, extension personnel use the concept of communication to participate in any innovation movement and to facilitate the exchange of information with each other so that the SHG members can reach a common understanding. The extension agent must be able to assume seven important roles while working in adoption and diffusion of innovations in the target group (Khalil, Ismail, Suandi, & Silong, 2008; Liles & Mustian, 2014).

1. **Improves the need for change:** The extension agent initially makes the target group aware of the needs to change their behaviour of the target audience. He/she introduces new alternatives to the solution of these problem with a counselling style.
2. **Establish an information changing link:** in the first stage, the need for change is created. Here the extension agent should develop relationships with the target group. The relationship can be enhanced and fully solidified through the agent's abilities, reliability, empathy and credibility. SHG members are obliged to accept the agent first, before accepting any innovation.

3. **Identify the problem of the target audience:** the agent should try to assess the SHG members' situation and also appraise why the methods they are using does not meet the requirement in terms of high out-put using maximum inputs. They should not approach farmers with their perspectives.
4. **Creates an intention towards change in the target group:** Once extension agents identify farmers' problems, an intention toward change should be built in the clientele to move forward.
5. **Transforms intentions into action:** The extension staff makes some suggestions based on the needs of the target audience. They try to influence the behaviour of the target group in a way that is appropriate to these suggestions. In this way, the propagation element is concerned only with the opinion leaders and directs the situation indirectly.
6. **Stabilizes the adoption of innovations and prevents them from giving up:** The extension staff can improve the behaviour of the farmers who adopt changes by maintaining their new actions. The dissemination element often accomplishes this activity when the farmers' innovation-decision process is completed or during the approval phase.
7. **Ensures success in the last relationships with farmers:** The final target of the extension worker is to improve the self-renewal behaviour of the farmers. The extension should only end the task if some farmers in the target group carry out their functions without the help of extension services.

In addition, Oakley and Garforth (1985) also examined the roles of extension staff in different parts of the world. Moreover, research of Suvedi and Kaplowitz (2016) support earlier research drawing attention to update changing roles and responsibilities of extension worker such as supporting adaptation to climate change, organizing participatory, demand-driven program planning for extension, and to carry out gender issues and marginal groups.

According to the examinations of all researchers, extension agents carry out multiple roles at once and take on the responsibilities required by each role. As a result, the roles of extension agents are different. It cannot be assumed that a role is more valid or important than others. This characteristic is stressed to illustrate the complexity of the role of the extension agent and to emphasize the need for careful consideration of the whole process.

Concept of Competency in Extension Work

Competency is a skill, a personal characteristic or a motive demonstrated by various behaviours which contribute to outstanding performance in a job. Generally, competency is the quality of being adequately or well qualified, having the ability to perform a job (Neda, 2009). Competencies of staff lead to effectiveness which is a product of an organization ability to attain and efficiently use existing resources, (particularly human resources) to achieve its goals. Focusing on competencies will aid any organization to outline the responsibilities, knowledge, and skills required for positions to their current employees. Competence refers to a person's underlying characteristics that are causally related to job performance (Neda, 2010). Competence is defined in the context of particular knowledge, traits, skills, and abilities. Knowledge involves understanding facts and procedures. Traits are personality characteristics (e.g., self-control, self-confidence) that predispose a person to behave or respond in a certain way. Skill is the capacity to perform specific actions, however, a person's skill is a function of both knowledge and the particular strategies used to apply knowledge. Abilities are the attributes that a person has inherited or acquired through previous experience and brings to a new task, they are more fundamental and stable than knowledge and skills (Payne, 2015; Pickett, 2008). Competence can be defined as the ability to perform a specific task in a

manner that yields desirable outcomes. According to Reynolds (2003) competence is the ability to apply knowledge, skills, and abilities successfully to new situations as well as to familiar tasks for which prescribed standards exist.

It is traditionally viewed that the development of competencies was based on job responsibilities. However, to Raad, Yoder, and Diamond (2014), it is more significant to generate competencies based on the needed outcomes from the job. Randavay, and Vaughn (1991) described competencies as the application of knowledge, technical skills, and personal characteristics that are designed around the abilities individuals and groups need to give effective job performance and use in making human resource decisions. Competence (1) is a physical or intellectual ability, skill or both; (2) is a performance capacity to do as well as to know; (3) is carried out under standardized conditions; (4) is judged by some level or standard of performance as "adequate", "sufficient", "proper", "suitable" or "qualified"; (5) can be improved; (6) draws upon an underlying complex ability; and (7) needs to be observed in real-life situations (Shavelson, 2010). The above definitions provide insight into what one should expect upon hearing the term. Operationalizing this concept, competencies can refer to a person's general knowledge and abilities used to carry out both specified and unspecified tasks leading to the satisfaction of all stakeholders' current and future desired standards.

Competencies Needed by Extension Workers to Facilitate Food Production by SHGs

Demographics changes, evolving technologies, and the global market create new challenges for extension services. Extension workers need to proactively recognize when change is necessary, respond, manage it effectively, and adapt instantly. Suvedi, and Kaplowitz, (2016) recommends that it is very necessary for extension services 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".

In their study, Rigyal and Wongsamun (2011) observed that the delivery of extension services to farmers in Bhutan came under critical review from Ministry of Agriculture (MoA) over questions of efficiency and technical competency possessed by the extension agents. Safiya (2011) also observed that among many others, lack of technical competency by extension agents and poor ICT knowledge resulted in the problems of extension workers low performance and ineffective delivery of services. Boyd (2013) stated that successful extensionists should have strong technical knowledge, and Belay and Abebaw (2014) observed that higher rates of technology adoption by clients are achieved when extensionists possess adequate technical knowledge.

Moreover, one of the weaknesses in past approaches for preparing extension personnel in developing countries has been the inability to focus on the development of professional competencies in the areas of administration, program planning and execution, evaluation, communications, teaching and extension methods and understanding human behaviour (Shavelson, 2010). However, lack of a proper balance between technical and professional competencies in staff has been identified as a common problem in the extension services of developing countries (Tiraieyari, Idris, Hamzah, & Uli, 2009; Tiraieyari, 2009; Stone, & Bieber, 1997).

The above findings cannot be isolated from the Nigerian situation, especially in North East. Extension in Nigeria came under serious criticism due to the fact that most extension workers were lacking the needed competencies to convince SHG members/farmers to adopt the new technologies introduced. An extension worker who has to assume a variety of roles amongst the farmers must fulfil a number of different roles and therefore must prove to possess competencies

in many diverse areas. Pickett (2008) indicated that the identification of key competencies provides for individual and organizational growth, and helps the organization meet future demands. In almost all competency studies of extension workers in most developing countries, the findings indicated the need for further strengthening of professional competencies in all areas (Raad, Yoder & Diamond, 2014; Randavay & Vaughn, 1991). Once the extension worker is in the field s/he is expected to perform an assorted number of tasks, but Androulidakis and Siados (2013) pointed out that extension agents' competence should be in accordance with the task areas in which they will be assigned to operate in order to perform successfully.

The Benet (2003) report identified a five-competency framework that built on a three-part set of foundation skills and personal qualities for success in the modern workplace. Individuals in the workplace should be able to productively use: 1) resources, 2) interpersonal skills, 3) information, 4) systems, and 5) technology.

These competencies require an underpinning of:

- a) the basic skills of reading, writing, arithmetic, speaking, and listening;
- b) the thinking skills of solving problems and reasoning (among others); and
- c) the personal qualities of individual responsibility, sociability, self-management, self-esteem, and integrity.

Competency Performance Relationship

The link between competency and performance is well established. Competency correlated with performance. It means competent extension workers, perform higher. Dhanakumars (2001) reported that job performance and extension competencies are positively related. Similarly, Androulidakis, and Siados, (2013) stated that competencies are factors that contribute to high levels of individual and organizational performance. On the other hand, by developing a set of competencies for extension workers and

incorporating those competencies into training, the capacity of an extension organization to better serve its clients can be improved (Liles & Mustian, 2014). This definitely can increase the rate of adoption of new technologies by clients.

Study conducted by Khalil et al., (2008) determined the relationships between competencies, organizational commitment and job satisfaction with job performance of extension workers in Yemen. The results of their study revealed a positive relationship between leadership development competency and extension workers' job performance ($r = 0.50$; $p = 0.001$). They further reported program evaluation competency predicts extension workers' job performance. Some research found interpersonal skills to be the best single predictor of job performance among women self-help group members (Ndaeji, Asnarulkhadi, & Nobaya, 2013). In addition, Ndaeji, Asnarulkhadi, & Nobaya, (2013) reported that social skills is a single strongest predictor of performance rating dimensions of task performance, job dedication and interpersonal facilitation, as well as for an overall rating of performance among women self-help groups.

Results of investigation conducted by Payne (2015) indicated that high performing employees were more skilled at communicating empathy, adapting their communication and managing interactions with others than lower performing employees. Similarly, findings of another research showed that possession of social competence led to a good prediction of job performance (Rivera, & Qamar, 2013). Findings of a research indicated that among all individual factors, social skill has strongest contribution in explaining the extension workers' performance (Thach et al., 2008). The result of regression analysis in the study of analysis of the job performance of the agricultural extension experts of Iran conducted by Seevers, Graham, Gamon, & Conklin, (2007) revealed that job ability (competency) contributes 48.6% of the variance in job performance of extension workers.

Extension workers must be competent in technical areas of their job in terms of knowledge and skills in new technology. Results of study conducted by Tiraieyari *et al.*, (2009) showed job performance of extension workers is positively related to technical aspect of their job related to the Good Agricultural Practices ($r = 0.356$, $p = 0.001$). Boyd (2003) stated that successful extension workers should have strong technical knowledge and skill (competency). However, Belay and Abebaw (2014) contended that higher rates of technology adoption by clients are achieved when extension workers possess adequate technical competency.

Cultural competency has also become a necessity for service providers, professionals and agencies (Olsen *et al.*, 2016). 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 & Qamar, 2013), cultural competency indeed appear to be necessity for extension agency and extension worker as well. Results of study carried out by Tiraieyari (2009) showed that Performance of extension workers is positively related to Cultural competency ($r = 0.611$, $p = 0.001$). With the help of this competency extension worker will be able to serve all rural people and bridge across culturally differences and ultimately improve the extension outcomes and performances.

Lylods, (2019) reported that low competencies limit the effectiveness of the individual and the organization as a whole. This can be implied that when agricultural extension workers lack competencies, the entire agriculture sector not only food production suffers, and the long run effect is that community development will be hampered, and the living standard of people in general will be low. In built competencies through training and re-training improves the ability of the entire organization to function and respond to the demands of the SHG

members in terms of food production and the like.

Conclusion

Extension agents working with SHGs in food production within North-Eastern Nigeria have high potentials of reducing poverty, creating employment opportunities and facilitate food security. The paper concludes that competencies of extension worker is the major determining factor for their effectiveness in boosting food production through SHGs approach. SHG members' participation is among the most essential component for their empowerment, but low competencies from the part of their facilitator may hamper objective attainment of the SHG. Also, individual extension worker competencies have contributed immensely towards boosting food production in North-Eastern Nigeria.

References

- Abu-Mus'ab, S. Y. (2009). Increasing farmers' productivity through qualitative extension education: each-one take-one approach. *Journal of Vocational education (JOVED)* 2(2).
- Abu Samah, A., and Aref, F. (2009a). People's Participation in Community Development: A case study in a Planned Village Settlement in Malaysia. *World Rural Observations*, 1(2), 45-54
- Adams, R. (1990). *Self-help, Social Work and Empowerment*. London: Macmillan.
- Aker, J. C. (2011). Dial "A" for agriculture: A review of information and communication technologies for agricultural extension in developing countries. *Agricultural Economics*, 42(6), 631-647. doi: 10.1111/j.1574-0862.2011.00545.x.
- Androulidakis, S. I., & Siardos, G. C. (2013). Agricultural extension agents' perception regarding their relevance and competence in certain professional task areas. *European Journal of Agricultural Education and Extension*, 1(3), 1-14.
- Athey, T. R., & Orth. M. S. (1999). Emerging competency methods for the future.

- Human Resource Management*, 38(3), 215-225.
- Bajoga, M. A. (2011). Critique on training modules of extension agents in GSADP. Discussion paper, May 2, 2011, Monthly Gombe State Ministry of Agriculture Bulletin.
- Bashir, S. M. (2014). Participation in microfinance scheme as a medium for empowerment among farmers community in Kano State, Nigeria. Unpublished PhD thesis.
- Belay, K. & Abebaw, D. (2014). Challenge facing agricultural extension agents: A case study from South-Western Ethiopia. *African Development Review* 16: 139-168. DOI: 10.1111/j.1467-8268.2004.00087.x
- Benet, C. F. (2003). Interdependence models. *Journal of Extension*, 31: 8-10. <http://www.joe.org/joe/1993summer/a8.p hp>
- Bennett, C. F. (1989). Improving Coordination of Extension and Research. In: *Foundations and Changing Practices in Extension*, Blackburn, A. (Ed.). University Of Guelph, Canada, pp: 118-128.
- Boyd, B. L. (2004). Extension Agents as Administrators of Volunteers. *Journal of Extension*, 42(2)<https://joe.org/>
- Boyd, B.L., (2013). Competencies for leaders of volunteers during the next decade: A national Delphi study. *Journal of Agricultural Education* 44: 47-57. <http://www.leadershipeducators.org/Archives/2003/boyd.pdf>
- Cooper, A.W. & Graham, D. L. (2001). Competencies needed to be successful county agents and county supervisors. *Journal of Extension*, 39(1), 1-11.
- Cox, L. & Miller, R. L. (2006). Technology transfer preferences of researchers and producers in sustainable agriculture. *Journal of Extension*. 44: 1-6. <http://www.joe.org/joe/2006june/rb2.shtml>
- Davis, K., & Sulaiman, R. (2014). The new extensionist: Roles and capacities to strengthen extension and advisory services. *Journal of International Agriculture and Extension Education*, 21(3). doi:10.5191/jiaee.2014.21301.
- Davis, E. K. (2018). Extension in Sub-Saharan Africa: Overview and Assessment of Past and Current Models, and Future Prospects. *Journal of International Agricultural and extension Education*, 15(3).
- Davis, K. E. (2004). Technology Dissemination Among Small-Scale Farmers in Meru Central District of Kenya: Impact of Group Participation. Unpublished PhD Thesis, University of Florida.
- Davis, K. (2015). *The new extensionist: Core competencies for individuals*. GFRAS Brief No: 3.
- Dhanakumars, V. G. (2001). Performance appraisal in Rubber Board Extension Delivery Systems (RBEDS). *Journal of Agricultural Extension and Management*, 2: 174-190.
- FAO, WFP & IFAD. (2012). *The State of Food Insecurity in the World 2012*. Economic growth is necessary but not sufficient to accelerate reduction of hunger and malnutrition. Rome, FAO.
- FAO: (2020). Agricultural Education Group; Extension, Education and Communication Service (SDRE); Research, Extension and Training Division (SDR). Rome: FAO.
- Gibson, J. D. & Hillison, J. (1994). Training needs of area specialized extension agents. *J. Exten.*, 32: 1-5. <http://www.joe.org/joe/1994october/a3.htm l>
- GSADP (2017). Gombe state Agricultural Development Program, Newsletter of 23rd March, 2017.
- Khalil, A.H.O., Ismail, M., Suandi, T., & Silong, A.D. (2008). Extension worker as a leader to farmers: influence of Extension leadership competencies and organizational commitment on extension workers' performance in Yemen. *Journal of International Social Research*. 4: 368-387.http://www.sosyalarastirmalar.com/cilt1/sayi4/sayi4pdf/khalil_and_vd.pdf

- Libaisi, J. K. (2010). Common Interest Groups' Contribution to Food Security among the smallholder farm households in the greater Kakamega District. M.sc thesis Unpublished, Masinde Muliro University of Science and Technology, Kenya.
- Liles, R. T. & Mustian R. D. (2014). Core competencies: A systems approach for training and organizational development in extension. *Journal of Agricultural Education and Extension*. 10:77-82. DOI: 10.1080/13892240485300121
- Linders, J.R. (2018). Competency assessment and human resource management performance of county extension chairs in Ohio. *Journal of Agricultural Education*. 42: 21-31. <http://pubs.aged.tamu.edu/jae/pdf/Vol42/42-04-21.pdf>
- Lylods, R. (2019). Behavioural competencies Guide & Dictionary. Helping to achieve your potentials. <http://www.lr-behaviouralcompetencies.org/pdf/BC-Dictionary-re-brand-final.pdf>
- Ndaaji, M.N., Asnarulkhadi, A.S., & Nobaya, A. (2013). Rural women empowerment through self-help groups in Nigeria: the role of participation and volunteerism. *Life Science Journal*. 5(2). <http://www.lifesciencesite.com>
- Ndaaji, M.N., Asnarulkhadi, A.S., & Hanina, H.H. (2013). Measuring rural women empowerment through participation in women self-help groups in Nigeria – An empirical analysis. *Journal of American Science*, 9(8), <http://www.jofaamerican-science.org>
- Ndekha, A. (2003). Community Participation as an Interactive Learning Process Experience from a Group Control Project in Zimbabwe, *Acta Tropical* 85, 325-333
- Neda, T. (2009). Relationship between Extension Worker Competencies and Job Performance in Implementing Good Agricultural Practices Program in Malaysia. PhD thesis, unpublished. Universiti Putra Malaysia.
- Neda, T. (2010). Importance of program development competencies for agricultural extension agents' performance in process of technology transfer. *American Journal of Agricultural and Biological sciences* 5(3)
- Oakley, P. & Garforth, C. (1985). The extension agent (sixth section), Guide to extension training. Food and Agriculture Organization (FAO). United Nations, United Kingdom, p.67. ISBN 92-5-101453-1. <http://www.fao.org/docrep/t0060e/T0060E08.htm#6>
- Othman, N. (2106). Malaysia's experience in training of farmers on good agricultural practice. Proceeding of the Regional Workshop on Marketing Training in the Agricultural Supply Chain, Nov. 20-24, FAO/ASMA/FAMA, Kuala-Lumpur, Malaysia. pp: 1-8.
- Payne, H. J. (2015). Reconceptualizing social skills in organizations: Exploring the Relationship between communication competence, job performance and supervisory roles. *Journal of Leadership Organizational Studies*. 11: 63-77. <http://www.entrepreneur.com/tradejournals/article/128206303.html>
- Pickett, L. (2008). Competencies and managerial effectiveness: Putting competencies to work. *Public Personal Management*, 27(1), 103-115.
- Raad, G. P., Yoder, E. P., & Diamond, J. E. (2014). Professional competencies needed by extension specialists and agents in Iran. *Journal of International Agricultural and Extension Education*, 1(1), 45-53
- Randavay, S., & Vaughn, P. R. (1991). Self-perceived professional competencies needed and possessed by agricultural extension workers in the western region of Thailand: A multivariate technique approach. *The Informer, Association for International Agriculture and Extension Education*, 7(1). 19-26.
- Reynolds, W. B. (2003). *Professional competencies needed by extension agents in the Louisiana Cooperative Extension Service* (Unpublished doctoral dissertation). Louisiana State University and Agricultural & Mechanical College, Louisiana.

- Rigyal, S. & Wongsamum, C., (2011). Perceived Professional Competencies and Job Performance of Block-level Extension Agents in Bhutan, JIAEE, 18 (1).
- Rivera, W. M. & Qamar, M. K. (2013). Agricultural extension, rural development and the food security challenge. Food and Agriculture Organization (FAO). The United Nations. <http://www.fao.org/DOCREP/006/Y5061E/Y5061E00.HTM>
- Safiya, D. K. (2011). Skill Acquisition Capacity Building and Women Economic Empowerment: A Case Study of Women Education Center, Birnin-Kebbi.
- Sallam, M. & Akram, B. (2015). *Agriculture extension situation in Dhamar province*. Dhamar Rural Development Project, Ministry of Agriculture and Irrigation, Yemen.
- Scheer, S.D., Ferrari, T. M., Earnest, G. W. & Connors, J. J. (2006). Preparing extension professionals: The Ohio State University's model of extension education. *Journal of Extension*, 44(4), 1-12.
- Seever, B., Graham, D., Gamon, J., & Conklin, N. (2007). *Education through Cooperative Extension*. New York: Delmar Publishers
- Shavelson, R. J., (2017). On the measurement of competency; Empirical Research in Vocational Education and Training. 2(1), 2010, 41-63
- Stone, B. B. (2017). A system's approach to professional development. *Journal of Extension* [On-line], 35(2), 2TOT2. Retrieved from <http://www.joe.org/joe/1997april/tt2.php>
- Stone, B. B., & Bieber, S. (1997). Competencies: A new language for our work. *Journal of Extension* [On-line], 35(1), 1COM1. Retrieved from <http://www.joe.org/joe/1997february/comm1.html>
- Sulaiman, R., & Davis, K. (2012). *The "new extensionist": Roles, strategies, and capacities to strengthen extension and advisory services*. Lindau, Switzerland: Global Forum for Rural Advisory Services (GFRAS).
- Suvedi, M., & Kaplowitz, M. (2016). *What Every Extension Worker Should Know – Core Competency Handbook*. Department of Community Sustainability Michigan State University East Lansing, Michigan, USAU.S. Agency for International Development (USAID) project Modernizing Extension and Advisory Services (MEAS).
- Thach, L. N., Ismail, M., Jegak, U., & Idris, K. (2008). Individual factors as predictors of extension agents' performance in Mekong delta, Vietnam. *Journal of Human Resource Adult and Learning*, 3: 93-102. <http://www.ctu.edu.vn/departments/dra/publication/quote052009/Le%20Ngoc%20Thach.pdf>
- Tiraieyari, N., (2009). The importance of cultural competency for agricultural extension worker in Malaysia. *International Journal Social Research*. 2: 411-421. <http://www.sosyalarastirmalar.com/cilt2/sayi8pdf/tiraieyari.pdf>
- Tiraieyari, N., Idris K. H., Hamzah, A., & Uli, K. (2009). Relationship between technical competency and extensionists' job performance. *Journal of Agriculture and Biological Sciences*, 5: 533-540. <http://www.insipub.com/rjabs/2009/533-540.pdf>