INFORMATION ACCESS, GENERATION AND UTILIZATION BY POULTRY FARMERS IN ZARIA ENVIRONS, KADUNA STATE, NIGERIA

BY

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DECLARATION

I, Danbaba Shuaiibu hereby declare that this thesis was written by me and that it is a record of my own research work. This work has not been presented in any previous application and any other qualification anywhere. It is my original work. All works cited are specifically acknowledged by means of references and all quotations are indicated by quotation marks or indentation.

_____ _____

Signature Date

CERTIFICATION

This is to certify that this thesis entitled "Information Access, Generation and Utilisation by Poultry Farmers in Zaria Environs" had met the requirement for the award of Master Degree of Archive and Record Management (MARM) of Ahmadu Bello University, Zaria-Nigeria.

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DEDICATION

This work is dedicated to the memory of my grandparents Aminatu and Abdulsalam Dikko and my parents Hajiya Habibatu Uthman and Dikko Danbaba. May Allah grant them Aljannatul Firdausi, Ameen.

ACKNOWLEDGEMENT

If Allah had not been by my side, this work couldn't have been completed. I owe Him all the thanks and all the glory. I give Him thanks for His mercy and for giving me wisdom, good health and strength to be able to undergo this programme. My sincere appreciation goes to my major supervisor Prof. Zakari Mohammed who inspite of his many and tight schedules was able to direct me on how to go about this work, went through the work step by step and untiringly make constructive corrections that add value to the work. I am sincerely appreciative for the level of commitment and intellectual contribution he exhibited while supervising this research work. I thank Allah by making me to be associated with such an icon. Dr. Baba S. Aduku's contribution to the completion of this research work cannot be quantified. His scrutiny and constructive criticisms contributed in no great measure to the outcome of this research.

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ABSTRACT

This study investigated "Information Access, Generation and Utilization by Poultry Farmers in Zaria Environs Kaduna State Nigeria. It was conducted in order to investigate what provision or lack of provision of information generation, access and utilization by poultry farmers can do to the socio economic of poultry farmers. The objectives of the study were achieved by formulating and answering four research questions. Survey method was adopted for the research. The instruments used to collect data for the study was questionnaire which was administered to the respondents in Zaria environs. The data collected were analyzed, using, chart, frequency tables and percentages in form of descriptive statistical tool. The entire population was used for this study, which was made up of registered poultry farms in Zaria environs. A well-structure questionnaire was administered to 100 of the respondents with a total of 88 (88.0/%) copies returned. It was discovered that, over 60% of poultry farmers in Zaria environs were not generating, accessing and utilizing the poultry information available due to lack of ICT infrastructure and lack of skills, lack government support and lack of cooperation among poultry farmers in Zaria environs. The study recommended that Information providers with the assistance of public libraries should exploit the possibilities of processing, repackaging and disseminating such information using extension workers, social and religious places. This could emulate NGOs and profit-making enterprises such as GSM providers, etc who disseminate information to their target audience. The state Library Boards should take up the responsibility of ensuring that state library services collaborate with Community Information Centres and provide relevant information to the poultry farmers. Information for poultry farming business could come from the Local Government Information unit to the Community Information Centre (CIC). Community Information Centre, religious places and social gathering has been hereby recommended for accessing information. Government should organize workshops, seminars, and other training time to time so as to increase the level of poultry Information generation, access and utilization by poultry farmers in Zaria environs.

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LIST OF ABBREVIATION

1. N.G.O: Nongovernmental Organization.

2. C.I.C: Community Information Centre.

3. I.C.T: Information and Communication Technology.

4. RUDIS: Rural/Urban Development Information System.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Information is one of the major resources that a business requires for improving their economic activities, products and services (Ikoja-Odongo, 2001). Information, being a factor in business, is the most important element of production because it is the key to effective management of all types of organizations. Underscoring information as an important element in business, Ikoja-Odongo (2001) accepted that "power comes from transmitting information, there by promoting innovative attitudes in production and high productivity."

The 21st century witness availability of information in different varieties of formats and sources. Recognizing its importance, information is being sought in an increasing number of situations by a multitude of people (Ugah, 2000). The advancement of knowledge is made possible through research by scholars in all fields coupled with the fusion and fragmentation of disciplines and knowledge. In addition, thousands of other information packages, e.g., Journals, Magazines, and Newspapers, were being turned out by an ever-expanding publishing industry. The electronic media produces vast volumes of information.

Information is certainly a vital element for creativity and innovation, a basic resource for learning and human thought, a key resources in creating more knowledgeable citizens, a factor that enables citizens to achieve better results in their lives, and important resource for national socio-economic development (Byerly and Brodie, 1999). Gray and Perry (1975) observed that to be well informed implies three conditions, the information must exist in a suitable form, people must know it exists, and they must know how to find and use it. Thus, unless individuals are aware of the availability of information, they may often think that it does not exist.

1.1.1 Poultry Farming

Any bird reared or hunted for a useful purpose is a member of the bird group collectively known as poultry. Poultry farming can be referred to the keeping or rising of domestic birds including fowls; chickens; turkeys; geese and ducks; for production of meat or eggs. Most of these birds are domesticated and are managed on the same basic principles as domestic fowl (Oluyemi, 2007). The Encyclopedia Britannica (2009) lists the same bird groups but also includes guinea fowl and squabs, young pigeons and quails are also generally considered to be poultry. Poultry meat and egg production are very important means of bridging the gap in animal protein. The meat of poultry stands out of all livestock sources as it has very low quantity of cholesterol.

Poultry farming is capital intensive when it is done on a large scale. It has many branches such as feed milling; hatchery; brooding up to point of lay or meat; sale of feeds ingredients; medicament; sales of eggs and birds, (Adene: 2004). Poultry farming involved different type of birds which is either for meat production, egg production and those that serve the dual purpose.

1.1.2 Essence of Poultry Farming

Jadhav (2007), identified some of the reasons why people engaged in poultry farming such as:- Employment Generation (Direct), Employment Generation (Indirect), Sources of food, Sources of Earning, Additional to National Income and Use of poultry parts and products in other industries. Similarly, households keep birds for household consumption, sale and reproduction purposes including other social and cultural roles (Tadelle 2003). Moreover, poultry farming constitute an important component of the agricultural and household economy in the developing world, a contribution that goes beyond direct food production as well as employment and income generation for small farmers, especially women (Guèye, 2002).

These poultry, which make up around 80% of poultry stocks in many developing countries of Africa and Asia (Pym 2006). Significant improvements in poultry production systems can be achieved through well-designed and implemented information dissemination programmes that endow those involved in poultry farming (i.e. poultry farmers, extension workers, communicators, planners, policy makers, etc.) with necessary knowledge and skills (Bradley, 1992). Moreover, rural poultry integrate very well and in sustainable way into other farming activities, because they required little in the way of labor and initial investment as compared with other farm activities (Tadelle, 1996). A further advantage is that small area of land is required to keep chickens.

Pederson (2001), reported that women owned most poultry flocks and that income generated from poultry production belongs to them. Seeberg (2002) also reported that 92% of the interviewed women kept the income from selling of eggs and chicken in their own hands and they sent more to their children, especially girls, to school. Experiences from Bangladesh showed that improved poultry productions increased farmer's livelihood and Women empowerment (Danida, 1998). The participation of women in rural poultry improvement programmes contributes to human development both by increasing access for rural women to income and knowledge, and by increasing production efficiency (Aboul-Ella, 1992).

1.1.3 Poultry Farming Practice and Management

Generally, there are four poultry production systems in developing countries and in Africa. These include the free-range system or traditional village system; the backyard or subsistence system; the semi intensive system and the small-scale intensive system (Gueye, 2000). The most common production system found in Africa are the free-range and backyard production systems (Gueye, 2003), and approximately 80% of poultry populations in Africa are reared in these systems (Gueye, 1998). The chicken in this system are a function of natural selection. As a result the performance of chickens under rural conditions remain

generally poor as evidenced by highly pronounced broodiness, slow growth rates, small body size and low production of meat and eggs (Sonaiya, 2000).

Poultry production systems in Nigeria show a clear distinction between traditional low input systems and modern production system using relatively advanced technology. There is also a third emerging small-scale intensive system as an urban and pier urban small-scale commercial system (Alemu et al 1997). However, the smallholder rural poultry production that predominately exist in the country is characterized as including small flocks, nil or minimal inputs, with low output and periodic devastation of the flock by disease (Tadelle, 1996).

1.1.4 Stake Holders in Poultry Farming

Among the stakeholders in poultry farming are the customers, farm managers. Other stakeholders are government officials; entrepreneurs; shopkeepers; leaders of dairy cooperatives; feed and medicine merchants; retailers and wealthy consumers. The differences among stakeholders imply different interests and perceptions regarding poultry farming. Government officials may know little or nothing about the socio-economic and technical aspects of poultry production but they can be zealous in protecting their own private interests. Entrepreneurs may be retired or active government employees, house wives; single women; unemployed casual labourers; school children; and industrialists who know how to make good use of government subsidies and tax laws. Combined with the different forms of poultry farming, (poultry E- book,2013).

According to Jadhav (2007), Poultry farming requires information. This is because enough information on the building and housing of poultry birds is critical to the surviving of the poultry. Housing of poultry is one of the key factor to be considered in poultry. This is because ventilation and generation of heat is vital depending on the age of the birds. The

information that a poultry farmer may also need again after the purchase of the birds is how to take care of the birds.

1.2 Statement of the Problem

For any community to function effectively a basic stock of information is necessary. We are living in an information age, where we have become more dependent on information. Malhaam (2011) says that information have become significant factors for production of goods and services. Organizations depend on the collection of information pertaining to the purpose for which they operate. Curtis (2013) stated that information is a vital element for technological, educational, social and economic change. From the various area involved in poultry farming the need to generate, access and utilize different types of information is equally enormous. This is because enough information on the building and housing of poultry birds is critical to the surviving of the birds. Information on health of the poultry, feeding of the poultry, security of the birds, the breed of birds, marketing of poultry products etc are core information to the poultry farmers. Poultry are suffering from viral, bacterial, parasitic, fungal and nutritional diseases. Information on how to keep the poultry house clean and dry and vaccinating the farmed stock of the poultry birds against all the diseases is equally important.

However, constraints facing poultry farming production systems are related to high mortality (mainly due to Newcastle disease, and avian influenza also in many countries since its outbreak in Asia in late 2003). Housing, feeding, breeding, security, medicine, training/education etc are some of the factors. Disease and predators are known to be the major causes of mortality of the poultry in Nigeria (Holye, 2006). The value of information to any society and the poultry farmers inclusive is very important. Information to the poultry farmers brings about economic growth in poultry farming. The overriding motive for practicing any business is to make profit. It is unfortunate however, that many poultry

farmers do not take time to learn why some poultry farmers failed. It is widely known that many poultry farmers have been forced out of business when they could not operate profitably (Ogundipe, 2008).

Information on all issues pertaining to poultry farming are available from several sources ranging from private organization, agricultural institutions, state and federal ministries of agriculture and international organizations or via internet, extension workers, community libraries, public media, pamphlets, etc for them to generate, access and utilize it. Much of the information contained what the poultry farmers need to improve their industry. Despite the fact that information is available to them many of the poultry farmers do not generate, access and utilize the available information to them, because over the years, our poultry farmers depend on indigenous or local information for improved poultry farming. Such information (indigenous or local information) refers to skill and experience gained through oral tradition and practice over many generations (Norem, 2012). According to Maw (2009), there was a predominant use of interpersonal sources of generating information such as neighbours of their farms, friends and relatives, and specialists in the process of decision-making.

Due to the inadequate poultry information access, generation and utilization pertaining poultry farming activities that include housing of the poultry, health of the poultry, security and good breeds of the birds and many others mortality rate and predators of the poultry became the major problem facing the poultry farming industry in Zaria Environ Kaduna State- Nigeria. Experience has shown that even simple vaccination and normal medication routine sometimes is confusing to some poultry farmers.

However, it is in the light of the aforementioned problems that this research was set to study information generation, access and utilization by the poultry farmers in Zaria environs.

1.3 Research Questions

This study sought answers to the following questions;

1. What type of information is generated by poultry farmers in Zaria environs?

2. Through which channels do the poultry farmers in Zaria environs access information?

3. What is the purpose poultry farmers in Zaria environs utilize information?

4. What are the challenges to information generation, access and utilization for poultry farming in Zaria environs?

1.4 Objectives of the Study

The objectives of this study are:

1. To determine the types of information generated by poultry farmers in Zaria environs.

2. To determine channels through which poultry farmers in Zaria environs accessed information.

3. To determine for which purpose poultry farmers in Zaria environs utilize information.

4. To determine the challenges to information generation, access and utilization for poultry farming in Zaria environs.

1.5 Significance of the Study

The research work is significant in the sense that it emphasized and contributed to the poultry farmers to generate access and utilize necessary and available information for their industry. This research documents how information may improve poultry farming in Zaria environs. This may be information that will probably valuable in planning for poultry farming production by government, NGOs, and other agencies. Such documentation may be crucial to the planning and improvement of information systems of value to community users with

special focus on poultry farming. This will also be particularly useful to the government and other development partners such as libraries, researchers etc. The results may also provide the basis for future research in the area of information on poultry farming. It also aimed at making the poultry farmers, stake holders, professionals and even others that want to join the business to generally aware the importance of information generation, access and utilization. The researcher wants to determine the strength and weakness on how they generate, access and utilize information. It would also encourage the nation; libraries; and other information centre to provide wider information channels that will contribute towards improving their activities.

1.6 Scope of the Study

This study covered "Information Access, Generation and Utilization by Poultry Farmers in Zaria Environs, Kaduna State- Nigeria" Zaria is surrounded by makarfi and kudan Local Government on the west, soba on the east and igabi local government on the south.

1.7 Delimitation of the Study

This study was delimited to Information Access, Generation and Utilization by Poultry Farmers in Zaria Environs, due to the constraints of finance, the time within which the research is to be carried out. The researcher also encountered problems associated to absenteeism of farm managers in their respective farms during data collection.

1.8 Operational Definition of Terms

The following terms are as defined within the context of this study:

Information generation: - The process of looking for information that isnavailable.

Information Access: Receiving messages or information from its source.

Information Utilization: Referred to the use or converting received information into action.

Poultry Farming: -The keeping or rising of poultry in different categories for the purpose of either for consumption, selling or other reasons.

Poultry farmers: Those engaged in the rearing and maintenance of Poultry.

Environs: A town with a collective surrounding.

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CHAPTER TWO

2.0 REVIEW OF RELATED LITERATURE

2.1 Introduction

This chapter is organized under the following sub-headings:

2.1 Information generation by poultry farmers

2.3 Information accessibility by poultry farmers

2.4 Information utilization by poultry farmers

2.5 Challenges to information generation, access and utilization by poultry farmers and

2.6 Summary of Review.

2.1 Information Generation by Poultry Farmers

Information generation is the process of creating, developing, and communicating ideas which provide solution to a problem. The process includes the constructing through the idea, gathering information etc. Information is produced in animal husbandry research either in conceptual form or embedded in material and disseminated through different channels. According to Michael (2001), though information is produced through animal husbandry research, it is not the only avenue for generating information. Others involve: Learning from experience; interaction and farmers' experimentation are other sources. Maw (2009), indicated that poultry farmers have been innovators for centuries, based on their own on-farm experimentation.

According to Maw (2009), there was a predominant use of interpersonal sources of generating information such as neighbours, friends and relatives, and specialists in the process of decision-making. Mass media also play a great role in provision of information in shortest possible time over a large area. Yahaya (2002) explained that, trends in Nigeria's agricultural development scenario show that mass media especially radio have tremendous potentials for generating poultry information. Many studies reported the positive and

significant relationship of mass media with adoption of poultry farming technologies. Nkonya (2007) reported that visiting veterinary clinics had positive influence on improved information in poultry farming. Poultry farming families; poultry farmer's cooperatives; poultry-businesses; animal husbandry press and extension service serve as sources of generating information for the poultry farmers. Especially extension workers can be seen as a good source, because extension services can tap a wide variety of information and have several partners (Sonaiya, 2001; Gueye, 2003).

According to Fenley (1984), there are various sources by which information of new technologies could be generated through interpersonal contact and mass media. Adams (1982) noted that the information channels used by farmers are mass media that include radio, television and newspaper, contact with extension agents or workers and with other farmers. It is essential that farmers generate information about the supply or availability of facilities or incentives for production in order to achieve the desired change in the industry. Okunmadewa (1999) opined that effective extension programme will lead to rapid transformation of innovative techniques and help reduce hazards associated with poultry production system. Adeokun and Agbelemoge (2002), reported that good communication does not only consist of giving only information but also helping farmers to improve their activities.

Other means of generating information to poultry farmers are discussions/interaction during wedding; religious gathering; through friends; neighbors; internet etc. official sources are through media that involve: radio; television; newspapers and ministries. While commercial sources are through handbills and fliers printed either for purpose of advertising new products in the market and to sell their wares.

Poultry farming generally is capital intensive right from the onset. There are different types of activities that lead poultry farmers to generate information to suit their poultry survival. These include:

Information on Poultry Housing:

Production of good number of chicken eggs and meat can get if the farm poultry house remains comfortably in the poultry house. According to Jadhav (2007), Poultry farming requires information on housing; this is because enough information on the building and housing of poultry is critical to the survival of the poultry. Housing of the poultry is a key factor to be considered in poultry farming. This is because ventilation and generation of heat is vital depending on the age of the poultry. Poultry house must provide adequate space, cool during summer, warm during winter and provide adequate supply of sunshine, good integration and dry environment.

Lack of proper information on housing the poultry is one of the constraints of the poultry production systems in some African countries, eg a large proportion of poultry mortality accounted due to nocturnal predators because of lack of proper housing (Dwinger, 2003). Some research works also indicated that the mortality of poultry can be reduced by improved housing. For instance, in the Gambia livestock improvement program, has been initiated which included improved poultry housing resulted in lower chick mortality (19%) relative to that observed in Ethiopia (66%) and Tanzania (33%), (Kitalyi, 1998).

Information on Selecting new Breed of the Poultry:

[Selecting the right vanity of bird and the services is very crucial for poultry farmer]. Information on the breed of birds, how and where to get the day-old chicks and how to establish birds laying are important information for poultry farmers. Some parts of the country are household name in poultry such as Lagos and Ibadan. There are Avian specialist at Ibadan, Obasanjo Farm in Ogun State, Zartech CHI, BNot etc among others. This

information needs to be sorted by the intending farmers and how well the birds are performing either in growth; percentage of egg laying and how long they can stay in laying eggs are core information to the poultry farmers (Poultry E-book, 2013).

Information on Poultry Feeding:

Poultry are fed with balanced poultry feed available in the market in different trade names, poultry production in Africa survives by scavenging and generally, no supplements provided except that some times, household waste fed to the birds and other circumstances the diet supplemented with grain (Dwinger 2003). Similarly, in Africa the poultry production system is characterized by keeping under free range system and the major feed sources are believed to be insect worms, seed and plant materials (Tadelle, 2003).

One of the major types of information poultry farmers generated is the information of feed intake and feed utilization. Such information will provide the basis for improvement in feed management, in terms of supplementary feeding and stocking density or birds per unit (Gunaratne, 2010). However, this limited resource feed restricts the potential productivity of poultry to 40-60 eggs per chick per year. Both egg production and egg size vary, as the quality and availability of feed varies (Mbugua, 1990). According to the finding of Tadelle, (2003), the feed resource is deficient in protein, energy and probably calcium for layer birds, and this is confirmed from the results of supplementation trial, which show that supplementation of local birds with feed sources containing energy, protein and a calcium source brings a considerable increase in egg production.

Information on Poultry Security:

Information is required here because, poultry farm must be established in a secured place to ward off enemies of birds, Predators such as snakes, rats, dogs, cats and foxes are the main causes of losses especially in young birds. Thefts are also another important cause for the loss of adult birds. According to Aberra (2007), about 46% of the respondents in

Southern Ethiopia reported, that wild birds (eagle, hawk, etc.) are the most common predators during the dry season, while wild cat (locally known as Shelemetmat) is the most dangerous predator during the rainy season.

Information on Poultry Health Care and Diseases:

Poultry are suffering from viral, bacterial, parasitic, fungal and nutritional diseases. Keeping the poultry house clean and dry and vaccinating the farmed stock of the poultry birds against all the diseases can help in maintaining a healthy stock of chickens. Disease and predators are known to be the major causes of mortality in the country (Holye, 1992). According to Negussie (1999), new castle disease accounted for the largest proportion of overall flock mortality to representing 57.3% followed by fowl pox 31.6%, coccidiosis 9.4% and predator loss 1.7%. Another study conducted in all zones found in Africa by Aberra (2007) indicated that the major problems of poultry production is Fowl cholera (28.8%), followed by New Castle Disease (26%), Coccidiosis (21.6%), Fowl influenza [Infectious Bronchitis] (15.4%), Fowl pox (3.4%), Fowl typhoid (3.4%) and Salmonella (1.4%). The prevalence of fowl cholera was considerably higher in the mid-altitude (53.3%) while fowl typhoid was a major problem in low altitudes accounting for 57% of the overall mortality.

Information on Poultry Marketing:

Since marketing plan is absolutely necessary for successful commercial poultry farming, as any farmer ignorant of his or her marketing needs is bound to run into serious losses and eventual failure. It will be ridiculous to start poultry production without knowing when, where, how and to whom to sell the fowls, eggs, feathers and droppings as they are produced. The major channels through which producers/farmers sell their products are directly sell to consumers and/or to small retails that take the product to large urban centers (Kena, 2002). However, the poultry farmers do have little information on how the market works and why price fluctuates and have virtually no information on market conditions

(Sonaiya, 2000). Thus, most poultry farmers sell the poultry product within their vicinity. This can attribute to the small number of poultry product offered for sale (Kena, 2002).

2.2 Information Accessibility by Poultry Farmers

Information accessibility is a situation whereby a user could have the ability to reach the needed information in all format and at the right time, only information that is available to the users can be regarded as information accessible. Encyclopedia Encarta (2009), defined accessibility as the state of quality of being able to be influenced, hence, accessibility of information is that knowledge or news that has the quality of being reached, approached and understood by the intending users. Yusuf and Mohammed (2002) also discussed information accessibility as an important ingredient of adult and non-formal education, sustainability in Nigeria. Accessibility to information means a state or circumstances which all persons or group of persons are able to reach and obtained with ease. Aboyode (1985) in her studies of the information of the rural communities in Nigeria, emphasized, the importance of having access to information. She stated that farmers need information for various purposes: boosting of their productivity, promoting socio-economic equity and for full preparation at grassroots community development.

- She discovered that the western styled librarianship embedded in written/print literary tended to make library services relevant to rural communities.
- She therefore, proposed a rural/urban development information system (RUDIS) necessary for socio-economic and cultural transformation. This is one of the best strategies for mass education and subsequently abolishing of literacy and ignorance. Hill, (1992) enhanced information accessibility which has improved communication and advancement in technology. The poultry industry in Nigeria can take advantage of this development. However, for this advantage to be adequately

exploited there is a need to determine the extent to which poultry farmers' access and utilize information.

Sambo (2000), also emphasized the fact that the importance of information accessibility that the need of information and the value of information to both society and farmers is a fact which is now widely accepted. He stressed that it is now well known and acknowledged that access to information is determined by the level of improvement. Mohammed (2001) suggested that women and men have the same equal right to access information at all levels. Sylvia (2005) reported that radio programmes allowed members of rural communities to gain access to information that provides education and entertainment. However, the use of these other sources could be value added advantage to the rural people to access information. Adams (1982) noted that the information channels used by farmers are mass media that include radio, television and newspaper etc.

When the rural farmers lack access to knowledge and information that would help them achieve maximum agricultural yield, they are not only groped in the dark but are driven to the urban centres in search of formal employment, as the only option for survival (Munyua, 2000). Blait (1996) pointed out that the least expensive input for improved rural agricultural development is adequate access to knowledge and information in areas of new agricultural technologies. Sue (2004), observed that access to information can help to reduce the mortality rate and other failure. (Fenley,1984). There are various sources by which information of newly improved technology could be accessed among which are interpersonal contact and mass media.

According to Pipy, (2006), Farmer's access to different information sources from extension services help them to get information about improved technologies and enhance the adoption of new innovations. Conducting various extension events play an important role in the provision of different poultry information and consequently enhances the utilization of the

accessed information. Such events include contact with extension agents, training, demonstration, and field days or visits etc. Okunmadewa (1999), opined that effective livestock extension programme will lead to rapid transformation of innovative techniques and help to reduce hazards associated with local production management system. Adeokun and Agbelemoge (2002) reported that good access to information does not only consist of receiving only information but also helping farmers to improve their activities.

The researcher agreed in principle with the above statement for the following reasons:-

- A well informed businessman will be able to take an informed decision which will propel him/her above his/her competitors in the market. Therefore, a well informed poultry farmer will be able to do well above his/her competitors.
- He/she can use the information at his/her disposal to obtain cutting edge technology that will enhance his/her profitability.
- Information is power and an informed businessman is an empowered businessman. Such is true even for poultry farmers.

Mann (2008), also declares that access to information is most critical resources and plays a fundamental role in development. Access to information is both physical and intellectual. Physical access is getting to the actual sources while intellectual access implies other skills and processes such as literacy for the comprehension and sustainable use of information. According to Harris (2010), the capacity of local communities to cope with economic and social change depends heavily on access to information and if communities do not function, other policy measures will fail. Bessei (2008), reported inaccessibility of information on rural agricultural production as a major constraint to development. Achleitner (1995) adds that information transfer should involve creation, dissemination, organization, diffusion, and use of information. These components broadly correspond to generation, organization, communication, and utilization of information. Vuuren (2007) says that most of the

knowledge generated by scientific research end up in offices and inaccessible to those who desperately need it.

2.3 Information Utilization by Poultry Farmers

Information utilization relates to the use of information. The frequency of converting received information into action is also considered. Information is undoubtedly a valuable resource for development in our complex modern society. We live in a society that is said to be information driven, where the success or otherwise of our day-to-day activities are strongly determined by how informed we are in executing these processes. Smith (1996) indicates that a positive interaction with information results in solution of a problem, taking a good decision, some activity which is task related, feedback on personal attitude, feed back to need, the generation of new information or a combination of any of these outcomes.

Canagarajah , (2000) lack of poultry inputs (Ojo and Plamers, 1998); and low educational level of farmers (Yahaya, 2003). However, the prospects for sustainable poultry production in Nigeria are high given locally available resources. One way to increase poultry production in Nigeria is through proper information dissemination, management and utilization. Sonaiya (2008) noted that development, documentation and dissemination of information and appropriate methods of data collection, collation, storage, retrieval and application on the field are essential.

The society use information for effective decision making in all sectors such as education, economy, agriculture, governance, healthcare etc., this information is packaged in disparate formats. The use of information is indispensable to individual, society, groups and authorities. Information is regarded as a vital resource comparable to other natural resources, indeed a strategic weapon for development. Provision and accessibility to accurate information at the right time and to the right users is important in the growth and development of any society.

Aguolu (2000) defines information as "Message of human experience, that is what is transmitted, a signal, or a stimulus and assumes a response in the receiver, and therefore, possesses response potentials". Okee (2005) also argued that the people are capable of governing themselves if they have adequate information and use it". Information is therefore a critical resource to the growth and development of any individual, group or nation. There is an increasing desire or awareness of information from individuals, groups, organizations and nationalities for policymaking, planning and other strategic reasons. Therefore, for professionals and practitioners in all works of life to keep tract of developments in their various disciplines, groups and as well contribute their own quota they have to be provided with well-packaged current information that is managed, shared and distributed on regular basis for them to use.

2.4 Challenges to information Access, generation and Utilization by poultry farmers

Harris *(*2010) argues that the main challenge with information is that people do not have equal access to it. Information carries the implication that access can be broadened or restricted meaning that, action either on the part of the person seeking access or on the part of a person empowered to allow access. For example, persons needing access to information may lack the skills like literacy to use it. It may be observed that when it comes to the modern information behavior, some obstacles exist as barriers for smooth and effective flow of information. (Dervin's 1977), the barriers to information cited by the respondents may be categorized into five categories namely, societal, institutional, physical, psychological and intellectual.

Mann (2008), mentions inconvenient location of information institutions and time factor as a major barrier to access of information resources. Zeleza (2007) notes that "Educationists generally agreed that learning is associated with publication in first languages which effectively promotes and maintains literacy" Most published materials in Nigeria, just

like elsewhere in Africa is in the form of textbooks produced in English, French and Arabic. Poultry farmers enjoy information resources produced in their own languages. Even where people are literate the nature of reading material sometimes exclude them from accessing information. John (2013), further explained that the poultry industry has contributed immensely to the economy of the nation. He said government could support poultry farmers by giving them grants to boost their poultry business. Government can give soft loans to these farmers, supervise its usage and give them training, but unfortunately government is not doing anything to assist the growth of the industry to the nation.

Most modern research findings are available online which excludes them due to an absence of an ICT culture and tools for access. There is so much literature on the potential of ICTs for the development of rural areas and improvement on productivity for example studies by Adene (2004) on the success of using indigenous languages to reach poor resources by farmers in India. There are however, contradicting views on the role and usefulness of ICTs in African development. ICTs have been blamed for worsening the plight of rural Africa because of the high costs and inaccessibility as Kenny (2005) argues that access to ICTs is dependent on education and income distribution. Chowdhury (2002) is of the opinion that the "the poor cannot eat high speed Internet".

McGarry (1991) among other authors argue that low levels of literacy is an obvious challenge to access to reading and information for the rural people but somehow she manages to meet her information needs for daily coping even though it might be to a lesser extent. This is possible because they have their own networks where information is passed orally. Research by Pao (1989), on user needs and information seeking behavior has shown that one's level of education is an individual's context that determines one's information needs, how they confront an information system and subsequently use that information. In which case there is a positive relationship between access to information and the level of education.

Access to information is also influenced by to the language and level of literacy. This might imply that rural communities are always closed out of much information that is in English. Spoken and written language both marginalize people in terms of access to information. Knowledge of the language helps articulate situations.

2.5 Summary of the Review

In summary, the need for information access, generation and utilization by poultry farmers is as relevant and necessary as air to human being. The outcome of the review shows information as the main core for development and success of any individual, business or organization and likewise poultry farmers. Poultry farmers need information to be available timely without delay and/or ambiguity to them be it in the rural areas or the urban. Media of information have to see to it that innovations and technology advancement must be communicated to the poultry farmers to enhance their decision. Such information should be explicit – because it has value in decision-making.

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CHAPTER THREE
RESEARCH METHODOLOGY

3.0 Introduction

This chapter presented under the following sub-headings:

3.1 Research method adopted for the study

3.2 Population of the study

3.3 Sample and the sampling techniques adopted

3.4 Instrument for data collection

3.5 Validity of the instrument

3.6 Reliability of the instrument

3.7 Procedure for data collection

3.8 Procedure for data analysis and discussion

3.1 Research Method adopted for the study

The survey research method was adopted for the study. Ali (2006) stated that survey is a type of descriptive research which uses sample data to describe and explain what is existent or non-existent on the present status of a phenomenon being investigated. David and Walomick (2005) defined survey research "as a method of research used to collect participant responses on facts, opinions, and attitude. Aina and Ajiferuke (2002), argued that, survey design could be conveniently used in large and small population without sacrificing efficiency in addition to time and money saving. This method is considered appropriate for this study because it allows extensive gathering of information, and it enables the researcher to reach out to the study population in their different locations.

3.2Population of the study

Adamu and Johnson (1997) defined population as a collection of individual items whether of people or things that are to be observed in a given problem situation. Similarly, Osuala (2002), reported that "population as any group of individuals that have one or more

characteristics in common that is of interest to the researcher. Population according to Mugo (2010) is a group of individuals, persons, objects or items from which samples are taken for measurement. The population of this study comprised of the registered poultry farms in Zaria environs which are one hundred. The subject of the study consist of the farm managers of the registered poultry farms in Zaria environs as contained in Kaduna State Ministry of Agriculture Veterinary Services Department Zaria (2014).

The Table 3.1 showed the breakdown of the population of the study. For the breakdown and detail of the table see appendix 1.

3.3 Sample and Sampling Technique

Since the population is not large and it is manageable, the researcher used the whole population for the study as sample. Bernard (2012) supported this position by asserting that if a population of a study is less than two hundred (200) the entire population should be used for the study. Hence, no sampling technique was applied in this regard.

3.4 Instrument for Data Collection

The questionnaire was employed as instrument for data collection. Omotosho (1990) described questionnaire as the form containing prepared questions to which the respondent is expected to supply answers. It permits wide coverage for a minimum cost both in terms of money and effort. It affords not only wider geographical coverage than any other technique, but also reaches individuals who are normally difficult to contact. Questionnaire was structured (close ended). A structured or closed ended question was found reasonable response from respondents and can easily be interpreted quantitatively for data analysis.

The questionnaire was divided into the following sections:

Section A**:** Demographic information

Section B: information generation

Section C: Reasons for information generation

Section D: Purpose of information utilization

Section E: channels of information accessibility

Section F: dealt with challenges to information.

3.5 Validity of the Instruments

The research instrument was validated by lecturers in the department and supervisors to determine the quality of the content. According to Muhammad (2005) "The instrument for data collection is said to be valid when it is able to produce correct responses from the subjects of the sample study".

3.6 Reliability of the Instrument

The reliability of the instrument was established by conducting a pilot study within one week at the Anguwandosa Kaduna. The result of pilot study showed that the instrument was reliable with a coefficient of 0.86. According to Gay (1981), a reliability co-efficient of between 0.5 and above is acceptable. The choice of the location was because it was not part of the scope of the study. The researcher personally distributed 4 copies of the questionnaire to poultry farmers. This is in line with Adigu (2011), Dangani (2010), who noted that pilot testing is usually done on a much smaller scale than the main study but under the same or similar condition.

3.7 Procedure for Data Collection

The copies of the questionnaire were administered to the respondents by the researcher and two trained research assistants. A period of five weeks was used by respondents to fill in the questionnaire and returned to the researcher.

3.8 Procedure for Data Analysis

The data collected for the study had been analysed using descriptive statistics and presented in frequency tables and graphics representatives for easy interpretation and discussion.

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CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND DISCUSSION

4.1 Introduction

This chapter presented under the following sub-headings:

4.2 Response Rate of the Respondent

4.3 Data Analysis and discussion

4.2 Response Rate of the Respondents

One hundred copies of the questionnaire were distributed to the respondents and eighty eight of them were duly completed and found useful. This represents 88% response rate. The high response rate was realised due to the fact that the respondents used were managers in the poultry farms. The respondents assisted the researcher by providing answers to the questions asked relevant to their poultry farming activities. Table 4.1 and figure 4.1 showed the response rate of the responding poultry farmers by location of the poultry farms.

Table 4.1 and figure 4.1 showed the response rate of the responding poultry farmers by location of the poultry farms.

Table 4.1 Location and Response rate of the Distribution of the Poultry Farmers in Zaria Environs

Location of Poultry Farms in Zaria Environs	Copies of questionnaire distributed	Copies of returned questionnaire	Percentage (%)
Samaru	10	9	9
Kakeyi Area	8	7	7
Marwa Area	13	12	12
Wusasa Area	7	6	6
Zaria Area	24	17	17
Shika Dam	3	3	3
Shika Area	4	4	4
Gyallesu Area	5	5	5
A.B.U m/campus	7	7	7
Yakasai Area	7	6	6
Sabon Gari Area	7	7	7
Gwargwaje Area	5	5	5
Total	100	88	88%

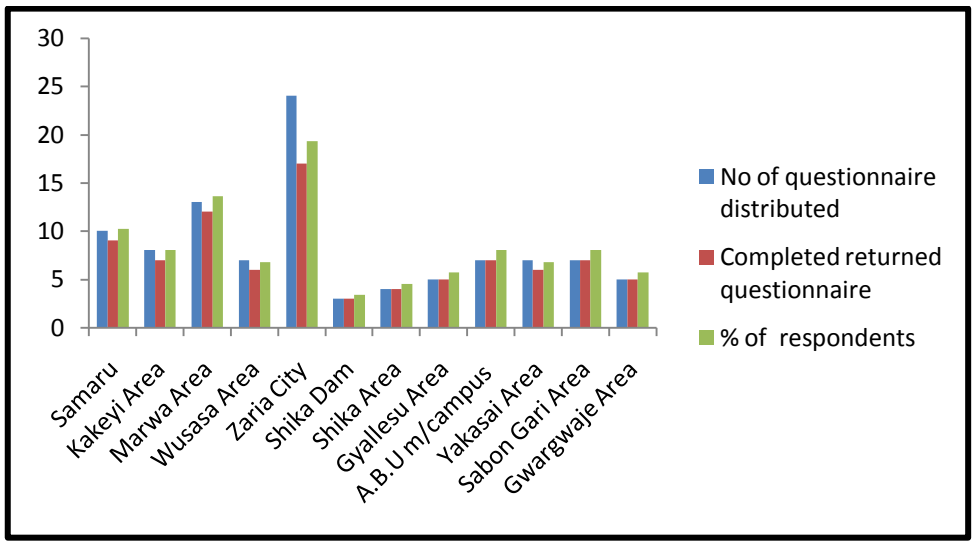


Fig 1.4 Response rate of the respondents.

Table 4.1 and Figure 4.1 show that the questionnaire distributed in various poultry farms in Zaria environs were one hundred (100) and eighty eight (88) were duly completed and returned back to the researcher.

4.2.1 Gender Distribution of the Respondents

The researcher attempted to find out the gender distribution of the poultry farmers to obtain a clear picture of the gender categorization of the poultry farmers in Zaria environs. Table 4.2 and figure 4.2 showed the gender distribution of the poultry farmers in Zaria environs.

Table 4.2 Gender Distribution and Location of the Poultry Farms in Zaria Environs.

Location of Poultry Farms in Zaria Environs	Male		Female		Total	
	F	%	F	%	F	%
Samaru	4	4.5	5	5.7	9	10.2
Kakeyi Area	6	6.8	1	1.1	7	8
Marwa Area	11	12.5	1	1.1	12	13.6
Wusasa Area	4	4.5	2	2.3	6	6.8
Zaria City	13	14.8	4	4.5	17	19.3
Shika Dam	3	3.4	0	0.0	3	3.4
Shika Area	3	3.4	1	1.1	4	4.5
Gyallesu Area	3	3.4	2	2.3	5	5.7
A.B.U M/Campus	3	3.4	4	4.5	7	8
Yakasai Area	5	5.7	1	1.1	6	6
Sabon Gari Area	5	5.7	2	2.3	7	8
Gwargwaje Area	4	4.5	1	1.1	5	5.7
Sub-Total	64	72.7	24	27.2	88	100

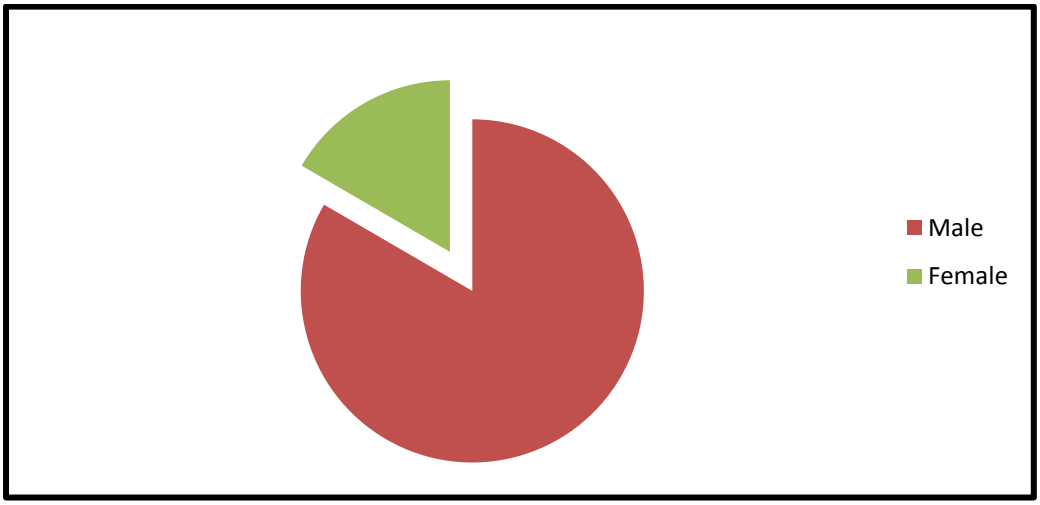


Figure 4.2.1 Gender Distribution of Poultry Farmers in Zaria Environs.

The Table 4.2 and Figure 4.2 show that 64 (72.7%) of the poultry farmers were males, while 24 (27.2%) were females. This revealed that there are more male poultry farmers than female in Zaria environs. It is attributing to the fact that male have more time than female. Yahaya (2001) reported similar results in previous studies that sourcing of agricultural information and utilization is along gender lines. They had posited that women are less likely to participate because they have limited time to access or utilize available information due to pressure of household responsibilities. Married women in particular are bypassed in the transfer of improved agricultural technologies assuming that they will get the information through their husbands (EARO, 2000).

The educational qualification of the poultry farmers is a function of their information skills, hence the need to include it as variable in a study of this nature. This is because the levels of education will enhance their chances of interacting with information resources at a wider scale. This influences their productivity, experience and other activities which will in turn improve their poultry farming. Table 4.3 and figure 4.3 show educational qualifications of the poultry farmers in Zaria environs.

Table 4.3 Educational Qualification and Location of Poultry Farmers in Zaria Environs

Location of Poultry Farms in Zaria Environs	Qualification obtained by the respondents									
	Diploma		1st Degree		Masters		PhD		Total	
	F	%	F	%	F	%	F	%	F	%
Samaru Area	1	1.1	3	3.4	4	4.5	1	1.1	9	10.2
Kakeyi Area	2	2.2	3	3.4	1	1.1	1	1.1	7	8
Marwa Area	2	2.3	6	6.8	3	3.4	1	1.1	12	13.7
Wusasa Area	1	1.1	2	2.3	1	1.1	2	2.3	6	6.8
Zaria City	8	9.0	5	5.7	3	3.4	1	1.1	17	19.3
Shika Dam	0	0.0	1	1.1	1	1.1	1	1.1	3	3.4
Shika Area	0	0.0	1	1.1	1	1.1	2	2.3	4	4.5
Gyallesu Area	1	1.1	2	2.3	1	1.1	1	1.1	5	5.6
A.B.U m/campus	0	0.0	2	2.3	2	2.3	3	3.4	7	8
Yakasai Area	2	2.3	2	2.3	2	2.3	0	0.0	6	6.8
Sabon Gari Area	1	1.1	2	2.3	2	2.3	2	2.3	7	8
Gwargwaje Area	0	0.0	3	3.4	1	1.1	1	1.1	5	5.6
Sub-Total	18	20.4	32	36.3	22	25	16	18.1	88	100

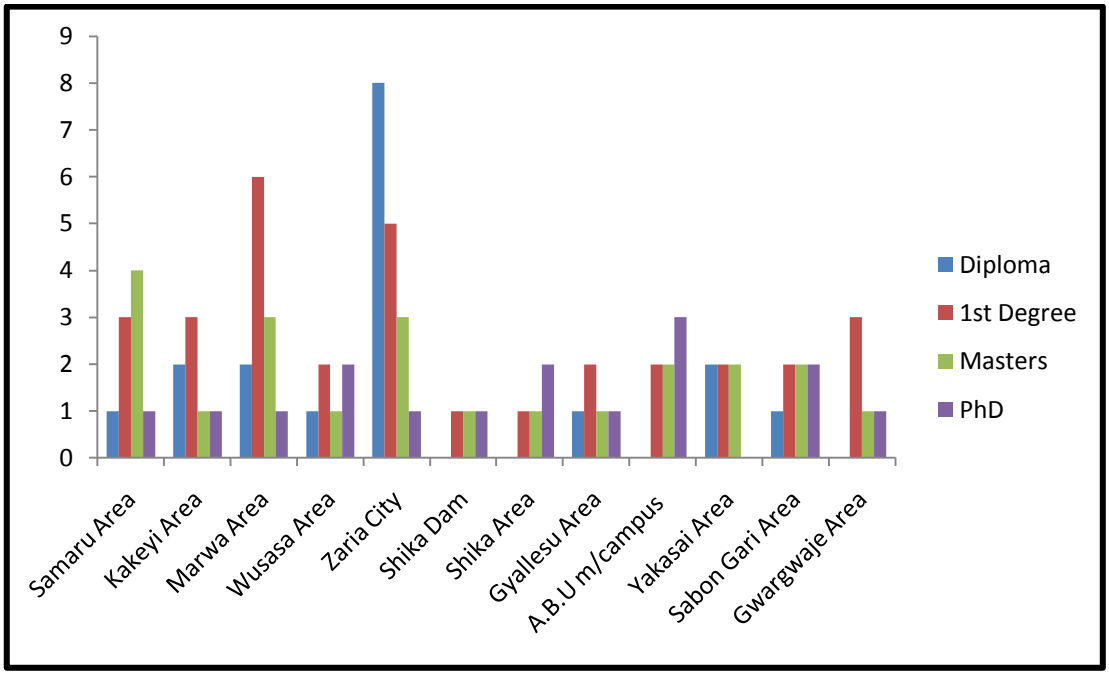


Figure 4.3 Educational Qualifications of the Poultry Farmers in Zaria Environs.

Table 4.3 and Figure 4.3 show the responses of the poultry farmers on their educational qualification obtained by poultry farmers in Zaria environs. It can be seen that first degree holders with 32 (36.4%) had the highest scores, whereas PhD holders with 16 (18.2%) had the least score.

From the analyses, it was evident that majority of poultry farmers in Zaria environs were First degree holders. Its due to the fact that most of the first degree holders were found to be less busy especially after national youth service corps before they secure government job compare to masters and PhD holders.

4.4 Years of experience of Poultry Farmers in Zaria Environs

The year of experience of the poultry farmers can assist the researcher to collect the expected information from the poultry farmers in Zaria environs. This is because it is assumed that years of experience in poultry farming will enhance their information generation, access and utilization and experience which will in turn improve their poultry

farming. In order to determine their experiences, lists of possible years of experience were presented to them to tick the appropriate answer. Table 4.4 and figure 4.4 presented the years of experience in the poultry farming in Zaria environs.

Table 4.4 Years of experience and of Poultry Farmers in Zaria Environs

Location of Poultry Farms in Zaria Environs	Years of Experience in Poultry Farming									
	0-10		11-20		21-30		31-40		Total	
	F	%	F	%	F	%	F	%	F	%
Samaru Area	5	5.7	2	2.3	1	1.1	1	1.1	9	10.2
Kakeyi Area	5	5.7	1	1.1	1	1.1	0	0.0	7	8
Marwa Area	9	10.2	2	2.3	1	1.1	0	0.0	12	13.6
Wusasa Area	4	4.5	2	2.3	0	0.0	0	0.0	6	6.8
Zaria City	12	13.6	3	3.4	1	1.1	1	1.1	16	18.1
Shika Dam	2	2.3	1	1.1	0	0.0	0	0.0	3	3.4
Shika Area	2	2.3	1	1.1	0	0.0	1	1.1	4	4.5
Gyallesu Area	3	3.4	1	1.1	1	1.1	0	0.0	5	5.7
A.B.Um/camps	4	4.5	1	1.1	1	1.1	1	1.1	7	8
Yakasai Area	3	3.4	2	2.3	1	1.1	0	0.0	7	8
Sabon Gari Area	4	4.5	2	2.3	1	1.1	0	0.0	7	8
Gwargwaje Area	3	3.4	2	2.3	0	0.0	0	0.0	5	5.7
Sub-Total	56	63.6	20	22.7	8	9.0	4	4.5	88	100

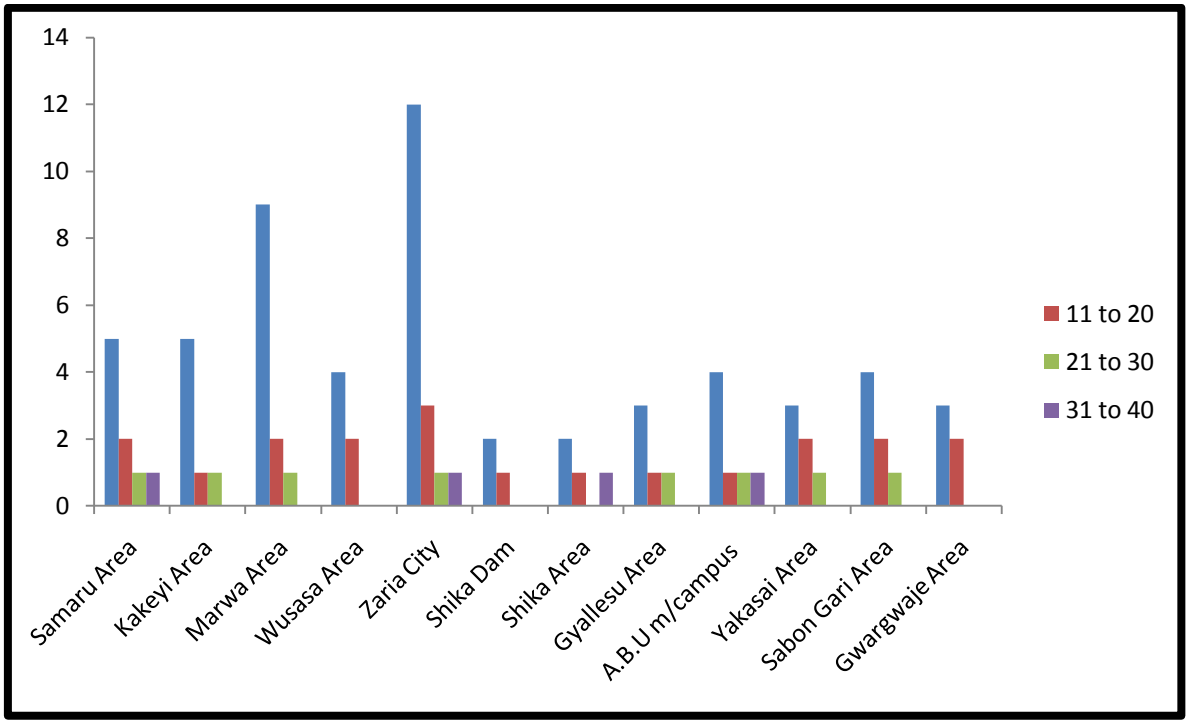


Figure 4.4 Years of experience of Poultry Farmers in Zaria Environs

Table 4.4 and Figure 4.4 show the responses of the poultry farmers in Zaria environs on their years of experience in poultry farming. It indicated that 1 – 10 years of experience with 56 (63.6%) had the highest scores. Those with 31 – 40 years of experience with 4 (4.5%) had the least scores. From the analyses, it was revealed that majority of poultry farmers in Zaria environs have between 1-10 years of experience. It may be attributed due to the lack of information access, generation and utilization by the poultry farmers which could lead them to failure and eventually pullout in the system earlier.

4.5 Size of Poultry farms in Zaria Environs

It is assumed that the size of poultry farms might affect the types of information generated, accessed and utilized by the poultry farmers. To do this, the size of the poultry farms had been categorized into three which include small, medium and large poultry farms. It is considered that a small poultry farm should have between 50-200 birds, medium poultry

farm should have between 200-2000 birds and large poultry farm should have between 2000 and above number of birds. Table 4.5 and figure 4.5 show the classification of the poultry farms in Zaria environs according to their sizes.

Table 4.5 Location and Size of poultry farms in Zaria Environs

Location of poultry Farms in Zaria Environs	**Size of Poultry farm**							
	Small		**Medium**		**Large**		**Total**	
	F	%	F	%	F	%	F	%
Samaru	3	3.4	4	4.5	2	2.3	9	10.2
Kakeyi Area	1	1.1	4	4.5	2	2.2	7	8
Marwa Area	2	2.3	4	4.5	6	6.8	12	13.6
Wusasa Area	1	1.1	3	3.4	2	2.3	6	6.8
Zaria City	6	6.8	6	6.8	5	5.7	17	19.3
Shika Dam	1	1.1	1	1.1	1	1.1	3	3.4
Shika Area	1	1.1	1	1.1	2	2.3	4	4.5
Gyallesu Area	1	1.1	3	3.4	1	1.1	5	5.7
A.B.U m/campus	3	3.4	3	3.4	1	1.1	7	8
Yakasai Area	2	2.3	2	2.3	2	2.3	6	6.8
Sabon Gari Area	3	3.4	3	3.4	1	1.1	7	8
Gwargwaje Area	1	1.1	2	2.3	2	2.3	5	5.7
Sub-Total	25	28.4	36	40.9	27	30.7	88	100

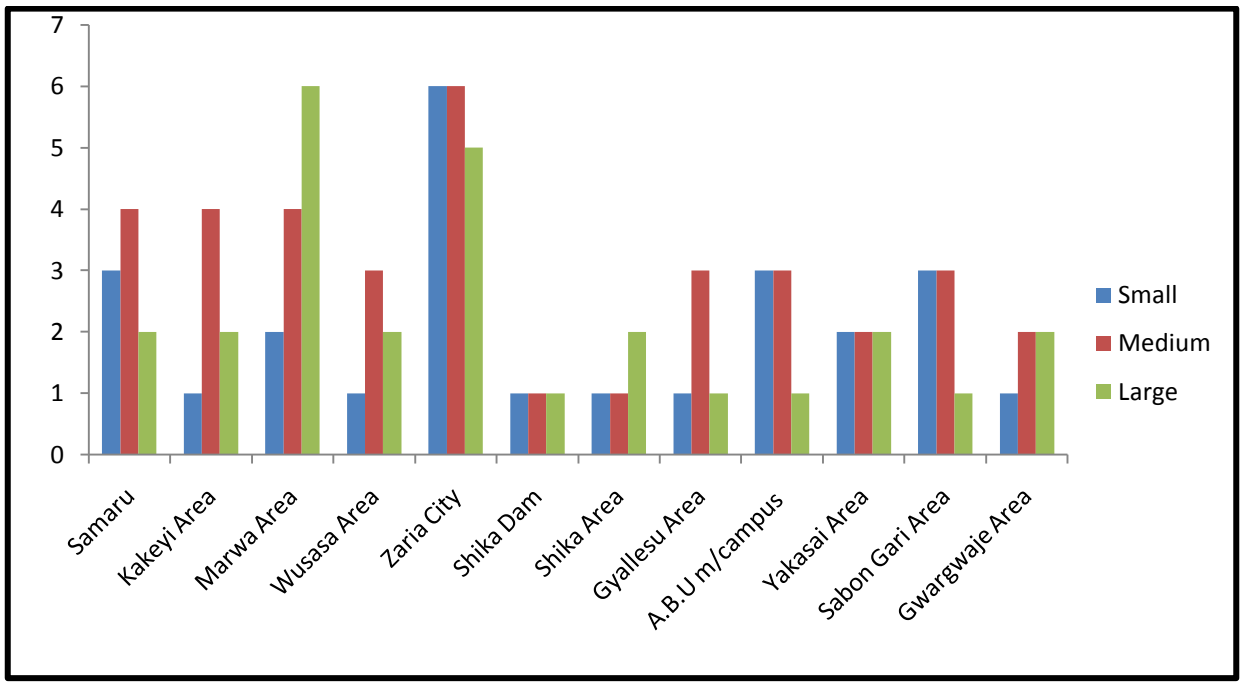


Figure 4.5 Location and Size of poultry farms in Zaria Environs

Table 4.5 and Figure 4.5 show the responses of the poultry farmers on the size of their poultry farms. It was discovered that medium size of the poultry farms with 36 (40.9%) had the highest scores. Whereas small size of the poultry farms with 25 (28.4%) had the lowest score. From the analyses presented, the findings revealed that majority of the poultry farms in Zaria environs were medium size. It may be due to the fact that poultry farming has high cost of maintenance right from day one up to the maturity stage involve a lot of expenses such as feeding, housing, health care, etc.

4.3 Data Analysis and Discussion

This section analysed and discussed the data collected for the study using descriptive analysis to answer the research question raised in the study.

4.3.1 Type of Information Generated by Poultry Farmers in Zaria Environs

One of the objectives of the research was to identify the types of information generated by the poultry farmers in Zaria environs. In order to achieve this, a list of information on

poultry farming was outlined for the respondents to tick as many relevant as possible in their respective farms. Table 4.6 and fig. 4.6 showed the types of information generated for the poultry farming.

Table 4.6 Type of Information Generated by Poultry Farmers in Zaria Environs

Types of Information Generated by poultry farmers	**Size of poultry farm**							
	Small		**Medium**		**Large**		**Total**	
	F	%	F	%	F	%	F	%
Information on poultry Housing	2	2.3	5	5.7	4	4.5	11	12.5
Information on breeds of the birds	3	3.4	9	10.2	5	5.7	17	19.3
Information on poultry feeding	9	10.2	5	5.7	2	2.3	16	18.1
Information on poultry health	9	10.2	10	11.3	10	11.3	29	33
Information on poultry marketing	2	2.3	7	8.0	6	6.8	15	17
Sub-Total	25	28.4	36	40.9	27	30.7	88	100

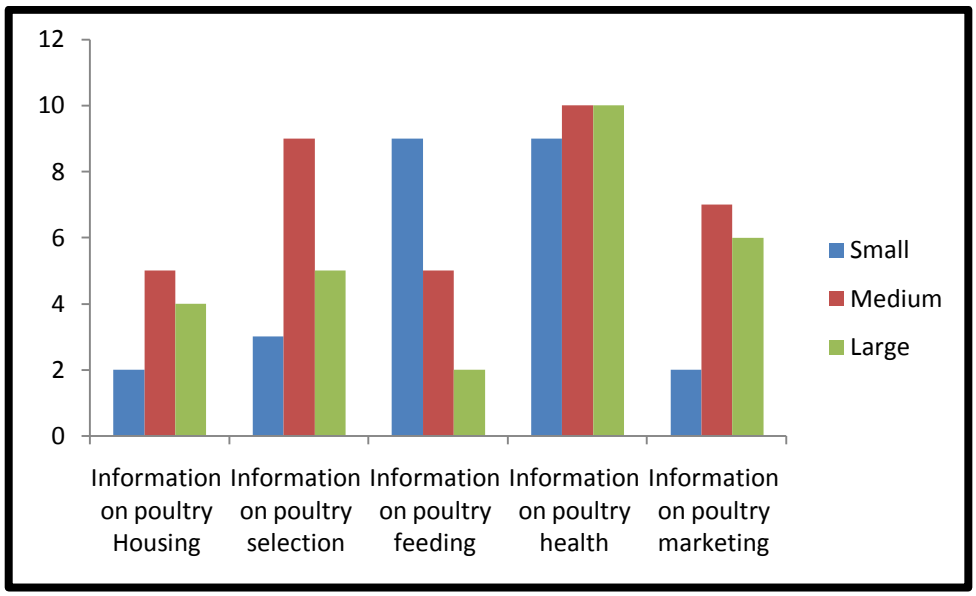


Figure 4.6: Type of Information Generated by Poultry Farmers in Zaria Environs

Table 4.6 and Figure 4.6 show that information on poultry health with 9 (10.2%) had the highest frequency scores from the small poultry farms in Zaria environs, whereas Information on poultry housing with 2 (2.3%) had the least scores. However, Information on poultry health with 10 (11.3%) had the highest scores from the medium poultry farms in Zaria environs, while Information on poultry housing with 5 (5.7%) had the least scores. Also, Information on poultry health with 10 (11.3%) had the highest scores from the large poultry farms category in Zaria environs, and Information on poultry feeding with 2 (2.3%) had the least response scores.

From the three categories of poultry farms in Zaria environs, it can be seen that the commonest type of information generated by poultry farmers in Zaria environs were information on poultry health, followed by information on new breeds of the birds and information on marketing response scores respectively. This finding corroborated that of Holye (1992), of Disease and predators are known to be the major causes of mortality in the country. Also Poultry E-book, (2013), agreed that information on the breed of birds, how and

where to get the day-old chicks and how to establish birds laying are important information for poultry farmers.

The implication here is that poultry farmers will not be well productive if other types of information is not access, generate and utilize which involved housing, feeding, security of the birds etc. because they need to generate all types of information together for optimum productivity.

4.3.2 Purpose for Information Generation by Poultry Farmers in Zaria environs.

The researcher tried to find out why the poultry farmers generate information. To this end, lists of reasons were provided for the respondents to tick as many reasons as relevant to their needs. Table 4.7 and figure 4.7 presents the reasons for information generation on poultry farming.

Table 4.7 Purpose for Information Generation by Poultry Farmers in Zaria Environs

Purpose for Information Generation by poultry farmers	Size of Poultry farm							
	Small		Medium		Large		Total	
	F	%	F	%	F	%	F	%
To monitor the production of eggs	1	1.1	2	2.3	1	1.1	4	4.5
Information on current practices in poultry farming	3	3.4	3	3.4	7	8.0	13	14.8
To avoid duplication of effort on poultry activities	2	2.3	3	3.4	2	2.3	7	8
To be aware about market conditions	1	1.1	6	6.8	2	2.3	9	10.2
To improved poultry farming	3	3.4	3	3.4	1	1.1	7	8
To avoid failure in poultry farming	5	5.7	3	3.4	2	2.3	10	11.4
To be aware of new breeds of birds eg growth rate	2	2.3	5	5.7	2	2.3	9	10.2
To be aware of feeding system e.g. conception rate.	2	2.2	2	2.3	1	1.1	5	5.7
To maintain the state of health of the birds	6	6.8	9	10.2	9	10.2	24	27.2
Sub-Total	25	28.4	36	40.9	27	30.7	88	100

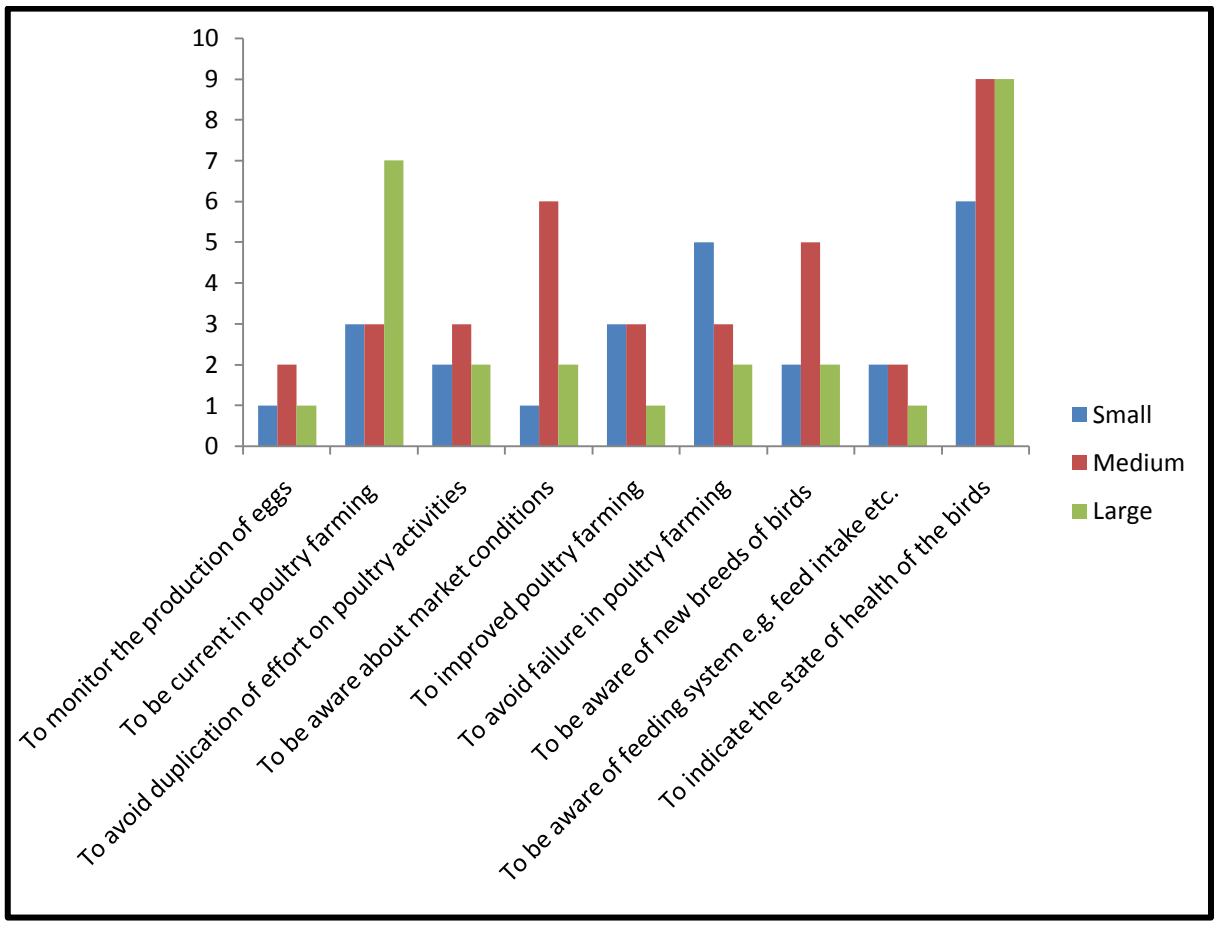


Figure 4.7: Purpose for Information Generation by Poultry Farmers in Zaria Environs

Table 4.7 and Figure 4.7 show the responses of the respondent on the reason for information generation by poultry farmers in Zaria Environs. To maintain the state of health of the birds with 6 (6.8%) had the highest frequency scores from the small poultry farms in Zaria environs, while to monitor the production of eggs with 1 (1.1%) had the least response scores. However, under the medium farms category, the majority of farmers 9(10.2%) indicated that they generate information to maintain the state of health of the birds, while to be aware of feeding system with 2 (2.3%) recorded the least response scores among the medium farms category. Similarly, the large farm category with 9(10.2%) response scores indicated that they generate information to maintain the state of health of their birds. This is followed by to monitor the production of eggs with 1 (3.7%) which had the least scores.

However, from the above three categories of poultry farms in Zaria environs, it can be deduced that the commonest purpose/reason(s) for which poultry farmers generate information in Zaria environs for their activities such as to maintain the state of health of the birds, followed by information on current practices in poultry farming and information on how to avoid failure in poultry farming business.

4.3.3 Channels of information access For Poultry Farming in Zaria Environs.

The researcher sought to identify the channels through which the poultry farmers in Zaria environs access information are identified. In order to identify which channels the poultry farmers utilize to access information, a list of possible channels were provided for them to tick. Table 4.8 and Figure 4.8 present their responses.

Table 4.8 Channels of Information Access by Poultry Farmers in Zaria Environs

Channel of Poultry Information Access for Farming	Size of the farm							
	Small		Medium		Large		Total	
	F	%	F	%	F	%	F	%
Interpersonal communication	2	2.2	3	3.4	2	2.3	12	8
Poultry farmers cooperatives	0	0.0	2	2.2	2	2.3	4	4.5
Extension workers	1	1.1	4	4.5	2	2.3	7	8
Radio	10	11.4	6	6.8	5	5.7	21	23.9
Newspaper	0	0.0	5	5.7	3	3.4	8	9
Magazine	0	0.0	2	2.3	1	1.1	3	3.4
Internet	5	5.7	9	10.2	6	6.8	7	22.7
Libraries	2	2.3	2	2.3	2	2.3	6	6.8
Veterinary clinics and hospitals	7	8	2	2.3	3	3.4	20	13.6
Sub-Total	25	28.4	36	40.9	27	30.7	88	100

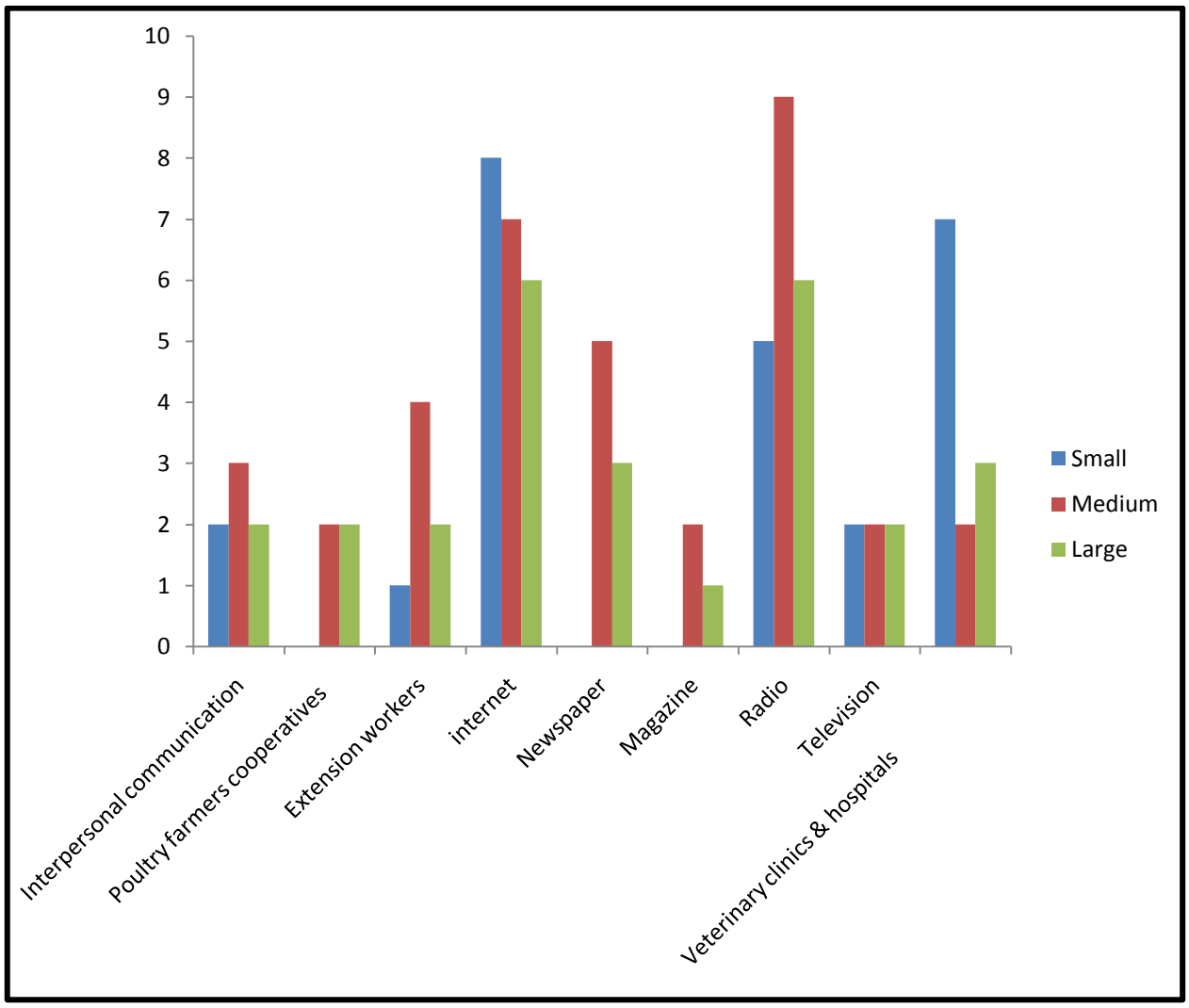


Figure4.8 Channels of Information Access by Poultry Farmers in Zaria Environs

Table 4.8 and Figure 4.8 show the responses of the respondents on the channel of information access by poultry farmers in Zaria environs. It was found that under the small size farms category, radio with 10 (11.4%) had the highest frequency score whereas Extension worker with 1 (1.1%) had the least scores. Also, Internet with 9 (10.2%) had the highest score from the medium size poultry farms category in Zaria environs, while libraries with 2 (2.3%) had the least score. Under the large size poultry farms, the respondents indicated that Internet with 6 (6.8%) had the highest score, while magazine with 1 (1.1%) had the least score.

However, from the three categories of poultry farms in Zaria environs, it can be deduced that radio, Veterinary clinics and interpersonal communication were the commonest channels used for information access by poultry farmers in Zaria environs. This finding is in line with Sylvia (2005) who reported that radio programmes allowed members of rural communities to gain access to information that provides education and entertainment. Also, Yahaya (2002) explained that, the trends in Nigeria's agricultural development including scenario show that mass media especially radio have tremendous potentials for poultry information.

The implication here is that most of modern findings are more available online which will exclude some of the poultry farmers to benefit from it due to the challenges of ICTs and ICT skills among them.

4.3.4 Purposes for utilizing Poultry information by poultry farmers in Zaria Environs.

The researcher sought to determine the purposes of information utilization for poultry farming in Zaria environs is identified. In order to identify for which purpose poultry farmers utilize information, a list of option were provided for them to tick. Table 4.9 and Figure 4.9 present their responses.

Table 4.9: Purposes for utilizing Poultry information by poultry farmers in Zaria Environs.

Purpose for Poultry information utilization for Farming	Size of Poultry farm							
	Small		Medium		Large		Total	
	F	%	F	%	F	%	F	%
For feeding of birds	6	6.8	3	3.4	4	4.5	13	14.8
For the poultry health	7	8	9	10.2	6	6.8	22	25
For poultry marketing	1	1.1	5	5.7	4	4.5	10	11.4
For poultry security	2	2.3	3	3.4	2	2.3	7	8
For egg laying management	0	0.0	1	1.1	1	1.1	2	2.3
For new breeds of poultry	2	2.3	3	3.4	2	2.3	7	8
for poultry farming system	1	1.1	3	3.4	1	1.1	5	5.7
For poultry Price condition	2	2.3	2	2.3	2	2.3	6	6.8
Sub-Total	25	28.4	36	40.9	27	30.7	88	100

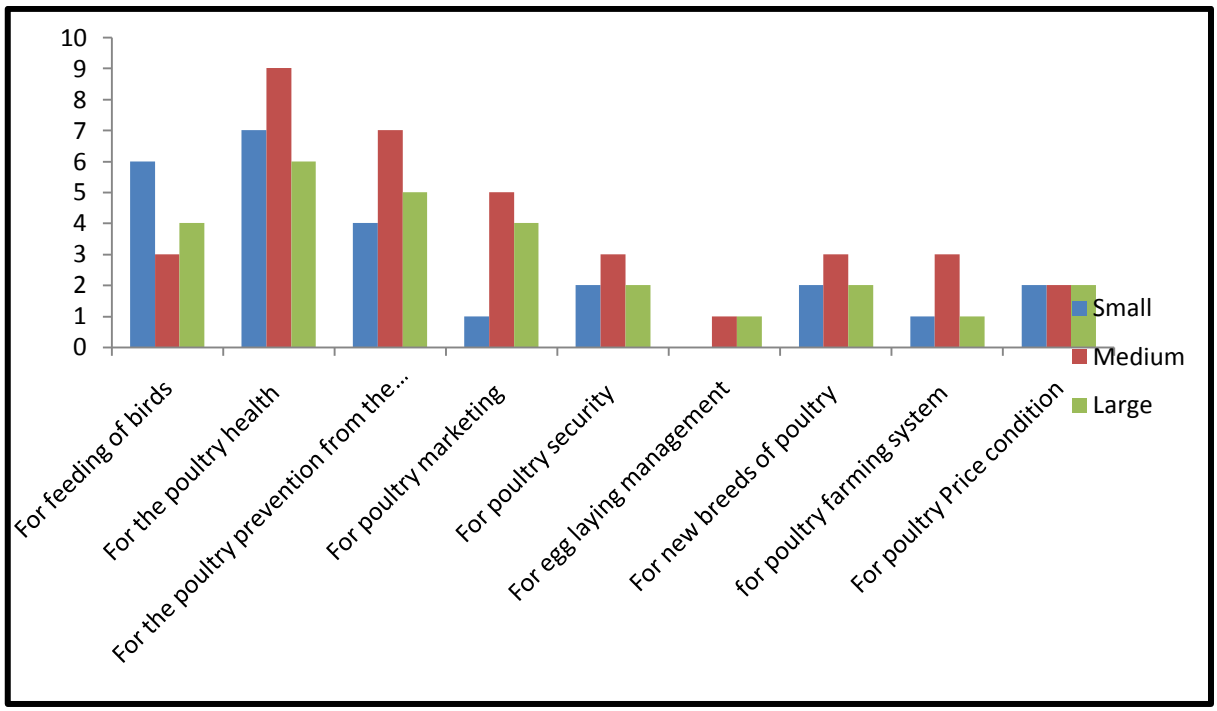


Figure 4.9: Purposes for utilizing Poultry information by poultry farmers in Zaria Environs.

Table 4.9 and Figure 4.9 show the responses of the respondent on the purpose(s) of information utilization by poultry farmers in Zaria environs. It is evident from the table that small size poultry farmers category in Zaria indicated that they use information for the health of their poultry with 7 (8.0%) response scores. This is followed by poultry marketing with 1 (1.1%) as the least purpose for utilizing poultry information by poultry farmers in Zaria environs. similary, under the medium size poultry farms category, the respondents indicated that they utilize Information for the sake of maintain the health of their poultry with 9 (10.2%) response scores, while 1(1.1%) of the same category of respondents utilize information for egg laying management. Also, 6(6.8%) of the respondents under the large size farms indicated that they utilize information for the poultry health of their birds. This is followed by utilizing information for egg laying management with 1(1.1%) which had the least score.

However, from the three categories of poultry farms in Zaria environs, it can be said that a majority of the poultry farmers were found utilizing information for the health of their poultry, for the sake of feeding the poultry and to gain information on poultry marketing. This finding corroborated that of Yahaya, (2003), who reported that one way to increase poultry production in Nigeria is through proper information utilization. The society use information for effective decision making in all sectors such as economy, healthcare etc likewise poultry farmers.

The implication here is that poultry farmers need to utilize any piece of information concerning all the poultry farming activities since all information is useful so as to avoid other problems like housing of the birds, security of the birds, feeding of the birds and marketing their products etc.

4.3.5 Challenges to Information Access, Generation and Utilization by Poultry Farmers in Zaria Environs.

The researcher sought to determine the challenges of poultry information access, generation and utilization for poultry farming in Zaria environs. In order to do this a list of options were outlined for them to tick. Table 4.10 and Figure 4.10 present their responses.

Table 4.10 Challenges to Information Access, Generation and Utilization by Poultry farmers in Zaria Environs

Challenges to Poultry Information Generation, Access and Utilization	Size of the farm							
	Small		Medium		Large		Total	
	F	%	F	%	F	%	F	%
Lack of ICT skills to generate, access and utilize information for p-farming	7	8	11	12.5	4	4.5	22	25
Lack of government support to generate, access and utilize information for p-farming	3	3.4	6	6.8	10	11.4	19	21.6
Lack of awareness about information	3	3.4	2	2.3	1	1.1	6	6.8
Time factor to generate, access and utilize information for p-f.	2	2.3	2	2.3	1	1.1	5	5.7
Language use in disseminating information	7	8	2	2.3	2	2.3	11	12.5
Lack of access to professional to assist e.g. veterinary doctors	1	1.1	3	3.4	1	1.1	5	5.7
Lack of cooperation among poultry farmers	2	2.3	10	11.4	8	9.1	20	22.7
Sub-Total	25	28.4	36	40.9	27	30.7	88	100

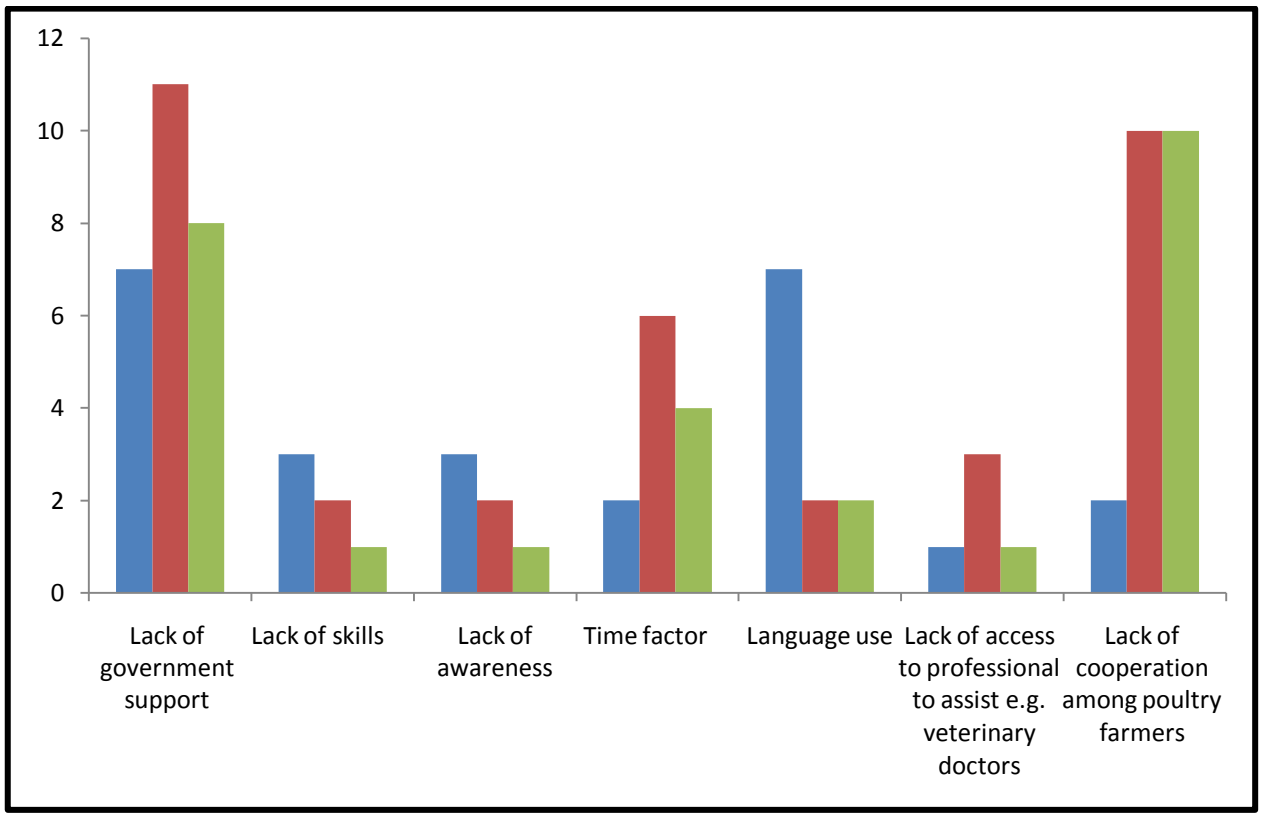


Figure 4.10 Challenges to Information Access, Generation and Utilization by Poultry Farmers in Zaria Environs.

Table 4.10 and Figure 4.10 show the responses of the respondents on the challenges to poultry information access, generation and utilization by poultry farmers in Zaria environs. From the table, it can be seen that Lack of ICT skills to generate, access and utilize information for poultry-farming with 7 (8.0%) had the highest score from small size of the poultry farms in Zaria environs, whereas, Lack of access to professionals to assist the farmers with 1 (1.1%) had the least score. Under the medium size farms, Lack of ICT skills to access, generate and utilize information for poultry-farming with 11(12.5%) had the highest scores, while, time factor to access, generate and utilize information with 2 (2.3%) had the least score. Also, Lack of government support with 10 (11.4%) had the highest score from large size of the poultry farms, while lack of awareness to information with 1 (1.1%) had the least score.

From the foregoing discussions of the three categories of poultry farms in Zaria environs, the common challenges to poultry farmers to access, generate and utilize information in Zaria environs were Lack of ICT skills to access, generate and utilize information for poultry farming, followed by lack of cooperation among poultry farmers and lack of government support. This finding is in line with Kenny (2005) who argues that access to ICTs is dependent on education and income distribution. Chowdhury (2002) is of the opinion that "the poor cannot eat high speed Internet".

The implication here is that these problems have constituted a limit to maximum information access, generation and utilization because of the high costs of telecommunication infrastructures such as computer, internet connectivity etc and lack of ICT skills to generate, access and utilize electronic information. If these are allowed to persist, there would be great challenges that will affect the entire poultry farming activities and productivity since information is back bone of any development.

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CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

This chapter is presented under the following sub-headings:

5.1 Summary of the Study

5.2 Summary of major findings

5.3 Conclusion

5.4 Recommdations

5.5 Recommendation for further study.

5.1 Summary of the Study

This study set to investigate the information Generation, Access and Utilization by Poultry Farmers in Zaria Environs. To accomplish this, four (4) research questions and four (4) objectives were formulated. The research questions sought to find: the type of information generated by poultry farmers, reasons poultry farmers generate information, channels to access information, purpose for which poultry farmers utilized information and the challenges to information generation, access and utilization for poultry farming in Zaria environs. Survey research method was employed in the conduct of this study. The data collected for the study was presented and analyzed using descriptive statistics. Frequency distribution tables, percentages and histograms were used for the descriptive statistics.

The population of the study was made up of registered poultry farms in Zaria environs. The total number of registered poultry farms collected was 100. However, the

whole populations were distributed to the respondents; a total number of 88 were duly completed and returned to the researcher.

5.2 Summary of Major Findings

Based on the data collected and analyzed for this study, the following are the major findings:

1. Poultry farmers in Zaria environs generate information on poultry health, new breeds of the birds and marketing. This finding corroborated that Holye (1992), of Disease and predators are known to be the major causes of mortality in the country. Also Poultry E-book, (2013), agreed that information on the breed of birds, how and where to get the day-old chicks and how to establish birds laying are important information for poultry farmers.

2. Poultry farmers in Zaria environs mostly access poultry information through radio, Veterinary clinics and interpersonal communication. This finding is in line with Sylvia (2005) who reported that radio programmes allowed members of rural communities to gain access to information that provides education and entertainment. Also, Yahaya (2002), explained that, the trends in Nigeria's agricultural development including scenario show that mass media especially radio have tremendous potentials for poultry information.

3. Poultry farms in Zaria environs utilize information on poultry health, feeding the poultry and marketing. This finding corroborated that of Yahaya, (2003), who reported that one way to increase poultry production in Nigeria is through proper information utilization.

4. Poultry farmers in Zaria environs mostly faced challenges of lack of ICT skills to generate, access and utilize information, lack of cooperation among poultry farmers and lack of government support. This finding is in line with Kenny (2005) who argues that access to ICTs is dependent on education and income distribution. Chowdhury (2002) is of the opinion that "the poor cannot eat high speed Internet".

5.3 Conclusion

Arising from the findings of the study, it could be concluded that information on all issues pertaining to poultry farming are available from several sources ranging from private organization, agricultural institutions, state and federal ministries of agriculture and international organizations or via internet, extension workers, community libraries, public media, pamphlets, etc for them to generate, access and utilize it. Much of the information contained what the poultry farmers need to improve their industry. But yet, despite the fact that information is available to them many of the poultry farmers were not adequately access, generate and utilize such information due to the lack of skills or know how, ignorance and lack of awareness and sometimes laziness among poultry farmers.

5.4 Recommendations

Based on the findings of this study and the conclusion reached, the following recommendations are made. That there is the need for:

1. Kaduna state Library Boards should take up the responsibility of ensuring that state library services collaborate with Community Information Centres and provide relevant information to the poultry farmers to generate available information.

2. Information providers with the assistance of public libraries should collaborate in processing, repackaging and disseminating such information using extension workers, social and religious places. So as the information could reach the targeted audience.

3. Extension workers and other government agencies hereby recommended for motivating the poultry farmers to utilize other information received and pay visit to their poultry farms for supervision.

4. Government should organize workshops, seminars, and other training time to time so as to train the poultry farmers how to access, generate and utilize from all sources so as to benefit from the global world.

RECOMMENDATIONS FOR FURTHER STUDY

1. Sources and utilization of poultry production information among poultry farmers in Kaduna State – Nigeria.

2. The effect of literacy on Access to and utilization of poultry information at northern part of Kaduna state Nigeria.

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Appendix 1

Table 3.1 Shows the Registered poultry farms in Zaria Environs

S/N	NAMES OF THE FARMS	LOCATION	TOTAL
1	Dr. Magami Farm Dr. Phillip farm A 5 farm Dr. Samuel Duru farm Dr. Julius farm Dr. Okolo farm Haj. MrsJibril farm MrsOkoli farm MrsMalgulli farm Dr. Peter farm Dr. M.K Sale farm MrsBuhari farm MrsOchu farm Dr. Ikpokonfe farm Dr. Sani farm Abdulaziz farm PLS farm	Samaru Area	17
2	RilwanAbubakar Farm Major farm SVISHTOV farm Mangwarawa farm Dr. John farm	Gwargwaje Area	5

3	Col. Hamid Farm Markus Musa Farm El-khalil Farm Abubakar Farm KakeyiFram Madaki Farm Mustapha jiji farm Gemufalala farm	Kakeyi Area	8
4	Nawaitu Farm Alh. Ibrahim Dankawu farm Taiku Farm Zeenat Farm Muhabbat Farm YahayaSa'ad farm Yusuf Dauda farm Makama farm Bitamas Farm Mainasara Farm Salbina Farm YahayaAminu Farm Shagalinku Farm	Marwa Area	13
5	Abubakar farm Mal. BalarabeTukur-Tukur farm Saedu farm Usama farm		

	Labak farm Naja'atu farm Maman ZT farm Sango farm Sunfat farm Mamanbiyu farm Alh. Sabo farm Shehu F C E farm Eng. Balarabe farm Abubakar M K farm Saigodiya farm SarkiSarkiJafaru Memorial Farm NasiruHaruna Farm Aliyu Fulani farm Arewa farm Buba farm Abtimas farm Alh. NasiruAdamu farm Alh. Musa Ikon Allah farm Yahuza farm	Zaria Area	24
6	Dr. lawalWusasa farm Dr. Kayode farm Mai Azama farm Yuguda farm Jacob Poultry farm	Wusasa Area	7

	Pulaner farm Dogara farm		
7	Ahmed NTC Poultry farm Dr. MJ Usman Poultry farm Amsaf Poultry farm	Shika Dam Area	3
8	Maigemu farm Fatima Kuta farm HauwauGyellesu farm Imam farm Alh. Idris farm	Gyellesu Area	5
9	Ibrahim NEPA farm Thank God farm Accord farm Sumi Farm Jimbas farm Talba farm Arewa farm	SabonGari Area	7
10	Dr. SunusiGamji farm Ras farm Alh. Auwalu Farm Illiyasawa Farm Nawaitu farm Babuga farm Dattawa farm	Yakasai Area	7
11	Hasmah farm		

	SulaimanChikaji farm sunrise farm NAPRI Farm	Shika Area	4
Total			100

Kaduna State Ministry of Agriculture Veterinary Services Department Zaria. Poultry Farm Registration (2014).

Appendix 2

Department of Library and
Information Science,
Ahmadu Bello University,
Zaria.

Dear Respondent,

I am a student in the above named department undertaking a research titled "Information access, generation and utilization by Poultry Farmers in Zaria Environs Kaduna State" as a partial requirement for the award of Masters Degree in Archive and Records Management (MARM).

The information requested is purely for research purpose. The respondent's identity is not required. Please help to respond honestly to the questions. All information given will be treated confidentially.

Thanks for your cooperation.

Yours sincerely,

Danbaba, shuaibu

P15EDLS8300.

SECTION A: Biodata

General instructions: Tick [ ] as it applies

1. Gender of the respondents: Male [ ] Female [ ]
2. Area where the farm is located _____
3. Educational qualification: PhD [ ] Masters [ ] First Degree [ ] NCE [ ] O-Level [ ] others (specify) _____
4. Years of experience in the poultry farming: 0-10 [ ] 11-20 [ ] 21-30 [ ] above 30 [ ]
5. What is the size of your poultry farm? Small 50-200 [ ] Medium 200-2000 [ ] Large 2000 above [ ]

SECTION B: Types of Information Generated by Poultry Farming

Which type of information do you generate for your poultry farming? (Tick as many as possible)

a. Information on Housing of poultry [ ] b. Information on selection of poultry [ ] c. Information on feeding the poultry [ ] d. Information on security of the poultry [ ] e. Information on health of the poultry [ ]

f. Information on marketing of the poultry [ ]

SECTION C: Purpose for Information generation by poultry farmers

Why do you generate information in your poultry farming? (Tick as many as possible)

S/N	Purpose for Information generation	Tick
1	To avoid duplication of effort on poultry activities	
2	To be current in my poultry farming practice	
3	To uncover new ideas	
4	To become aware about market condition	

5	To improved my poultry farming	
6	To avoid failure	
7	To become aware of new breeds of birds	
8	To become aware of feeding system e.g. feed intake etc.	
9	To reduce mortality rate	
10	To become aware of price regulation	

SECTION D: Channels of Information access by poultry farmers

Through which channels do you access your Poultry Farming information (tick as many as possible?)

a. Interpersonal [ ] b. Poultry farmers cooperatives [ ]

c. Extension workers[ ] d. Radio [ ] e. Newspaper [ ]

f. Magazine [ ] g. Internet [ ] h. Television [ ]

I veterinary clinics or hospitals [ ]

SECTION E: Purpose of information utilization by poultry farmers

For what purpose do you utilize information for your poultry farming? (Tick as many as possible)

S/N	**Purpose For information utilization**	**Tick**
1	For feeding of birds	
2	For the health of the birds	
3	For the prevention of birds from the diseases	
4	For the marketing of poultry products	
5	For the security of the birds	
6	For egg laying management	

7	For new breeds of the birds	
8	Information for poultry farming system	
9	For Price regulation or condition	

SECTION F: Challenges to information Generation, Access and Utilization by poultry farmers

What are the challenges do you face for information generation, access and utilization for your poultry farming (tick as many as possible?)

a. Lack of awareness to poultry information [ ] b. Lack of ICT skills to generate information [ ] c. Language use [ ]

d. Time factor [ ] e. Lack of government support [ ] f. Lack of access to professional to assist e.g. veterinary doctors [ ] g. Lack of access to Internet [ ] h. Lack of cooperation among poultry farmers [ ].