

RADIO AS A TOOL OF DIFFUSING AGRICULTURAL INNOVATIONS IN LAGOS

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ABSTRACT

The role of Mass Media in development has been a major issue of discourse among experts and scholars of development communication. This paper examines the role of radio in diffusing agricultural innovations among peasant fish farmers in Lagos metropolis. Using in-depth interview, the study found that peasant fish farmers are not aware of agricultural innovations on radio. They however acknowledged that they received commercials on agricultural products and technologies through radio, but in most cases, the commercials are not useful because the technologies advertised are often unaffordable. The respondents also believe that agricultural innovations are not available in radio programmes and the few programmes on agriculture are not useful because they do not address their problems. The findings oppose the basic tenets of the Study's theoretical framework: agenda setting theory, development media theory, diffusion of innovations theory and value – expectancy theory. One of the major implications of the findings is that the ongoing food crisis in Nigeria may continue, until there is a synergy of major stakeholders, including the media institution, to address the problems.

Key words: *Diffusion, agriculture, Community radio, peasant fish farmers, broadcasting.*

Introduction

“It will be a shameful thing and a very unfortunate scenario to see a prince of a well-known highly influential, connected king with unquantifiable and stupendous wealth begging for food or crying for hunger despite his father’s wealth and popularity” (Okunmadewa cited by Alozie, 2011 Pg 1).

A Professor of Agricultural Economics and World Bank Consultant, Foluso Okunmadewa used the above illustration to describe the “sorry” state of Nigeria, a nation blessed with abundant agricultural resources, but has found it increasingly difficult to feed her people (Obi, 2008; Alozie 2011). Okunmadewa offered this view while delivering a paper titled “Food prices crisis and the

challenge of sustainable development in Nigeria” at the 40th Interdisciplinary Research Discourse by the post graduate school of the University of Ibadan, Nigeria (Alozie, 2011).

According to Obi (2008), critics contend that despite the nation’s massive wealth, especially the wealth generated from oil over the past 50 years, about one in three of Nigeria’s 140 million people goes to bed very hungry every night. As reported by the Alozie (2011), a non-governmental group, Action Aid, organized a march in Abuja, Nigeria’s capital to promote awareness about widespread hunger in Africa’s most populous nation in 2007. During the march, Action Aid described the plight of Nigerians who suffer from hunger as “an indictment of those who have more than enough to eat in a country with more than enough resources and potential to banish the hunger it breeds”. Like other marches to raise awareness on social issues, it was reported that the police dispersed the march before the protesters reached their goal of presenting petitions to the late president, Umaru Yar’Adua and parliamentarians to encourage policies to end hunger in the country, which ranks fifth in the world hunger index despite her abundant natural but dormant resources (Obi, 2008; Alozie 2011).

However, the problem of food crisis is not peculiar to Nigeria. Hunger and malnutrition increase on daily basis throughout the world. Artisan fisheries and sustainable food system have worsened, crisis exists in peasant and indigenous agriculture and people are losing sovereign control over their resource (Mboho, 2009). Little wonder why the first United Nations Millennium Development Goal (UNMDGs) is targeted towards eradicating extreme poverty and hunger. The targets include, having between 1990 and 2015, the preparation of people whose income is less than one dollar a day and having, during the same period, the proportion of people who suffer from hunger (SCM News cited in Mboho, 2009).

While several factors may be responsible for the hunger crisis in Nigeria, the concern of this paper is to examine the roles of radio in promoting sustainable food production through dissemination of agricultural innovations and stimulation of interactions among peasant farmers towards the attainment of surplus food production and general agricultural development in Nigeria.

Statement of the Problem

Without gain saying, Nigeria has one of the greatest agricultural potentials and resources in the world (Obi, 2008). Ironically, it is also one of the poorest countries in the world . Several factors such as bad leadership and corruption may be responsible, but the media also have a critical role to play.

According to Mboho (2009), the use of broadcast medium in disseminating agricultural information is an example of planned communication. McQual and Windahl in Mboho (2009) noted that this media role emanates from a collective, organized source with a purpose and a clearly specified objective. It is targeted to a specific section of the population and conforms to established norms. Yahaya (2003) observed that agricultural communication as indeed any development communication accelerates interaction among farmers, leads to improvement in the quality of information output, and confers status or legitimate on agricultural issues. It can also act as an institutional catalyst where departments, groups, organizations, institutions and government can use to mobilize people for agricultural development (Mboho, 2009)

Given the above roles of mass media in promoting agricultural development, this study investigates the use of radio to spread and stimulate agricultural ideas and interactions among peasant farmers in rural Lagos.

Research Questions

The study is guided by the following research questions:

1. What is the depth of farmers' exposure to radio programmes on agriculture?
2. How well are farmers aware of agricultural innovations through radio programmes?
3. How useful are radio programmes on agriculture to individual farmers and in stimulating agricultural interactions among farmers?

Purpose of the Study

This study is aimed at understanding the roles of radio in spreading ideas about modern agricultural practices and stimulating interactions among farmers towards adopting agricultural innovations for overall rapid development in the sector.

Literature Review

Previous studies (e.g. Konkwo, 2007; Mboho 2009; Alozie 2011) have examined the roles of mass media in promoting sustainable development. Much of such studies often dwell within the purview of development communication. This study shall review some of the studies, especially those related to agricultural communication. The researcher will also attempt to trace the development of agriculture in Nigeria, issues around food crisis, role of mass media in promoting agricultural development as well as the attendant problems or challenges of rural and community broadcasting in Nigeria.

Global Food Crisis

Shortage of food and malnutrition is a global crisis. Valentine cited in Mboho (2009) reported World Forum on Food Sovereignty's observation that hunger and malnutrition grow everyday throughout the world partly due to the crisis in peasant and indigenous agriculture and artisan fisheries. This has worsened sustainable food system and people are losing sovereign control over their resources.

According to United Nations (2008), the current global food crisis has emerged from the recent unprecedented increases in the price of food, especially of staples, coupled with shortages and diminishing food stocks, which have reduced access to food for many people (particularly the poor) in a large number of developing countries. There has also been a substantial increase in the food import bills of developing countries (UN, 2008). This has created a host of humanitarian, socio-economic, developmental, political and security challenges. But beyond its immediate humanitarian dimensions, it is also a crisis of global development policy. This is in itself a tragedy, especially at a time when the new generation of globalization has brought great benefits for many (UN, 2008).

Most immediate are the urgent hunger needs in over 37 developing countries, as identified by the Food and Agriculture Organization of the United Nations (FAO), one of which is Nigeria. The food crisis, according to UN (2008) can however provide an opportunity in the sense that higher food prices should be beneficial for many farmers in developing countries. But this positive effect is non-existent as the farmers are not often adequately linked to markets or are subjects to other constraint preventing them from obtaining sufficient return from their produce. According to Mboho (2009), pollution of the air, water, and land has made agriculture increasingly difficult for farmers in developing countries. Higher carbon dioxide levels in the atmosphere extend the agricultural growing season and have potentially negative effects on crops and forests. Polluted rivers, wetlands, seas and oceans kill off fish, making fishing impossible. Access to credit is also

a major problem to many farmers. They find it difficult to obtain loans. The lack of appropriate agricultural policies and non-implementation of existing ones also serve as challenges facing farmers, as well as lack of modern technologies and correct agricultural strategies (Mboho, 2009, p.4).

Writing on the legal implication of the global food crisis, United Nations (2008) noted that the global food crisis undermines one of the most fundamentals human rights - the right to be free from hunger and malnutrition, recognized under the international covenant on economic, social and cultural rights and the universal declaration on the eradication of hunger and malnutrition. It also hampers the achievement of development goals, as reduced availability or affordability of food compromises health, education, maternal well-being and many other social indicators, as well as the capacity to earn a living. It can thus reverse efforts to accelerate achievement of the millennium development goals (MDGS), of which it is significant that the first goal seeks “to eradicate extreme poverty and hunger” and thus hints poverty and hunger. Thus, the high food prices, shortages reduced food consumption and worsened nutrition associated with the crisis has far-reaching and multi-faceted repercussions for all countries (UN, 2008).

Food Crisis in Nigeria

Nigeria has a population of about 140 million people and ranks as most populous country in Africa, tenth in the world and the most populous black race on earth (the Guardian online, 2001, August 13). According to Eribo (2001), Nigeria’s population will soar to 337 million in 2050 to become the fourth most populous country in the world, while India, China and the United State will be top three. Going by this projection, Nigeria may be faced with greater challenges, as food scarcity and insecurity is already posing a serious threat. Currently, Nigeria finds it difficult to feed her citizens despite its massive wealth generated from oil exploration (Obi, 2008). The 2012 Global Hunger Index (GHI) ranks Nigeria as the 40th country with extremely alarming hunger situation. Although this is a clear indication of the country’s improvement over its 2008 5th position in the world hunger ranking, several Nigerians still go to bed without food (Obi, 2008, Alozie 2011).

Development of Agriculture in Nigeria

Alozie (2011) traced the evolution of agriculture in Nigeria to three major eras; pre-colonial, colonial and post colonial independence eras. The pre-colonial era started and lasted for thousands of years when man settled in a place to engage small-scale sustenance farming and hunting instead of moving from place to place for food. Agriculture remained the main occupation of Nigeria traditional communities for many years until the arrival of Europeans and Colonialists in the mid 1800s, which marked the beginning of the colonial era. Organized agriculture, research and extension services began in the colonial era, despite the fact that most of the policies were informal (Alozie, 2011). At the period, research concentrated on export crops, including groundnut, rubber, palm oil, cotton and cocoa, which benefited the British economy at the expense of staple food crops like maize, rice, yam, cassava, millet and sorghum. Yet, Nigeria produced enough staple food crops, livestock and fish to fish itself during the colonial and early post – independence eras (Babatunde & Oyatoye, 2005; Ogen, 2007, Alozie 2011).

After Independence, the Federal Government initiated the first national development plan (1962-1968) in which agriculture was prioritized. The objective included the introduction of modernized agricultural methods through farm settlements, cooperative plantations, supply of improved farm

implements and expanded agricultural extension services, in addition to producing enough food to feed the country and cash crops for exports. (Ogen 2007).

Idacha cited in Alozie (2011) however pointed out that a flaw of the first, second (1970-1974) and subsequent plans was the extensive attention given to export instead of production and increased performance of staple food crops. This error, according to Alozie (2011) marked the beginning of crisis in the Nigerian Agricultural Sector.

At Independence, the agricultural sector contributed over 60% of the GDP, which has now reduced to barely 40% with much instability. According to Ogen (2007), Nigeria was still able to produce 70% of Nigeria's exports and 95% of its food needs, despite the reliance of Nigerian peasant farmers on traditional tools and indigenous farming methods.

Gradually, agriculture began to suffer intense neglect as the country moved from an agricultural-based economy to mono-cultural petrol-based economy in the 1970s. Estimates of the sector's contribution ranged from less than 5% to about 30% (Babatunde and Oyatoye, 2005). But presently, it is estimated that agriculture contributes 40% of the animal GDP, employs 64% of the labour force, and accounts for over 70% of the non-oil exports and provided over 80% of the food needs of the country (Nigerian Agricultural Index, 2013).

Although Nigeria has embarked on several agriculture development plans and programmes, production have not kept pace with the growing population. Some of the agricultural programmes embarked on by the country include Operation Feed the Nation, OFN (1976); River Basin Development Authorities, RBDA (1977); Directorate of Food, Road and Rural Infrastructure, DFRRI (1986); National Agricultural Land Development Authority, NALDA (1992); National Fadama Development Project, NFDP (1992); Nigerian Agricultural Cooperatives and Rural Development Bank, NACRDB (2000); National Agricultural Development Fund, NADF (2002); Commodity Marketing and Development Companies, CMDC (2003), amongst others. Virtually all of these programmes have woefully failed in Nigeria (Babatunde and Oyatoye, 2005; Ogen 2007; Alozie 2011).

Failure of agricultural policies and programmes in Nigeria have been attributed to several factors. Among the factors indentified by Okunneye (2002) include the following;

1. **Infrastructural Problems:** These include poor road networks, lack of appropriate on-farm and off-farm storage facilities, poor rural electrification, inadequate irrigation facilities amongst others.
2. **Poor Manpower/Skill Development:** This encompasses high illiteracy level among farmers and poor training of extension workers.
3. **Socio-Cultural Factors:** Nigeria's land tenure system and discrimination against women are some of the socio-cultural factors identified as hindering the success of the country's agricultural sector.
4. **Economic Factors:** These include unavailability and high cost of inputs, increased demand for higher wages in rural areas, difficulty in accessing small-scale loans and high interest rates of bank loans.
5. **Government/Regulatory Policies:** Examples include land use act, importation tariff, unprotective policies, lack of support for research, and corruption of government officials.
6. **Environmental Factors:** These include high incidence of pests and diseases, erosion, drought, pollution, desert encroachment, amongst others.

Okuneye (2002) further noted that whenever trade liberalization is seriously implemented, it stimulates the growth of Nigeria's agricultural commodities, but takes a downturn when

neglected and released. He reported that the advent of democracy leads to massive impacts of luxury goods which began to dominate the economic scene. He narrated that in 1986, when the structural adjustment programme (SAP) came into existence, Nigeria witnessed a gross neglect of the food production sector, thus bringing about a significant increase in food prices.

As a result of these problems and Nigeria's inability to produce food that can feed herself, the country has become a net importer of food. The country spends about \$3 billion annually on basic food imports, while the average family spends about 73% of its budget on food, leaving about 65% of all Nigeria's food unsecured (Alozie 2011). When a ban was placed on rice importation for instance, food shortage ensued and groups rose in protest as its price and prices of other staple food products rose (BBC News, cited in Alozie 2011).

The concern of this paper is to examine the role of radio in midst of the several agricultural challenges discussed so far.

History of Radio Broadcasting in Nigeria

Adeyemi, Sofoluwe and Kadiri (2008: 89) traced the evolution of radio broadcasting in Nigeria to "December 19, 1932 when the British Government commissioned the British Broadcasting Corporation (BBC) to begin a broadcasting experiment to her colonies scattered in different part of the world". Adeyemi et al (2008) noted that radio broadcasting officially started through a system known as Radio Distribution Service (RDS), a system in which BBC radio programmes were transmitted through wires connected to loudspeakers or rediffusion boxes in subscribers' homes or offices. By 1939, the number of RDS subscribers had grown from 500 to 1000 while about 2000 had got license for wireless receivers and the system was also expanded to Ibadan, thus making the beginning of broadcasting network in Nigeria (Adeyemi et al, 2008).

Radio Broadcasting evolved through several developmental stages in the country until August 24 1992 when broadcasting was deregulated through Decree No 38, thus breaking the monopoly of broadcast station ownership from the Federal and state governments. The decree empowers the Nigerian Broadcasting Commission (MBC) to license private radio and television stations to operate in Nigeria (Adeyemi et al, 2008).

The major point to note in the history or emergence of radio broadcasting in Nigeria is the programming philosophy of each era. During the colonial days, radio was used to advance the goals of the colonial government. After independent, the Federal and Regional government, both military and civilian, also extensively used radio as a tool of propaganda (Onabajo, 2001). When the air wave was opened to private businessmen, radio has been partly used for public service but to a large extent, it has been used to serve the commercial purpose of the owners. Radio has been used to mobilize and reinforce power during the civil war and to spread government ideas to people during the military era (especially the Babangida regime); it was also partly used for public service during the regional system of governments, but the power of radio to fully mobilize the society for development has not be maximized in Nigeria (Onabajo, 2001).

Radio as a Medium of Development in Africa

Radio Broadcasting has been identified as the medium with the highest potential for effectiveness in the developing countries. Oso (2002, 153) confirms this assertion when he said: "Without doubt, it (radio) has the greatest reach having penetrated all the nooks crannies of these countries (developing countries). It is the cheapest and most accessible mass medium. As the Hausa-Fulani Suya seller or cattle rearer or the market woman at Dugbe market in Ibadan has demonstrated, all one needs to have access to radio programmes is a functioning hear".

Oso (2002) noted that right from the colonial period particularly after the second world war, the Nigerian government, realizing the effectiveness of radio in mobilizing people, invested much resources in developing radio broadcasting. He reported that the importance of radio was greatly reinforced during the civil war and immediately after when it was extensively used as a propaganda weapon both in the effort and in the following programme of reconciliation, rehabilitation and reconstruction.

The power of radio is not limited or peculiar to only Nigeria, but most developing nations. Myers (2008) said radio is the dominant mass medium in Africa with the widest geographical reach and the highest audiences compared with television, newspapers and other information and communication technologies (ICTS). Overall, radio is enjoying a renaissance and numbers of small local stations have exploded over the last twenty years, due to democratization and market liberalization and also to more affordable technologies. According to Myers (2008), radio seems to have proven itself as a developmental tool, particularly with the rise of community and local radios, which have facilitated a far more participatory and horizontal type of communication than was possible with the older, centralized broadcasting model of the 1960s and 70s. There seems also to have been a rediscovery of radio in the context of new ICTS, a realization that technology has made radio into a more two way medium and that it can help bridge the digital divide by providing a powerful tool for information dissemination and access, especially for hard-to-reach rural audiences (Myers, 2008).

Generally, radio stations can be divided into four categories: public radio, privately owned commercial radio; community radio and international radio (Myer, 2008). She explained that which types of stations are best for reaching and empowering the poor depends on the context. Community radios, according to her, when truly community-oriented, can have some impressive result. She also observed that they can be appropriated by negative political forces and at worst, can turn into “have radio”.

Regardless of its weakness and limitations (for instance, its feature of having only audio possibility), all the recent and reliable surveys agree that radio is still the dominant mass medium in Africa, with the widest geographical reach and the highest audiences compared with TV, Newspapers and other ICTS (Myers, 2008, Balancing Act 2008; RIA, 2005).

Community Broadcasting in Nigeria

There is often a misconception between the terms “rural broadcasting” and community broadcasting”. Differences in the terms can be spotted using Oso’s (2002) differentiation between the terms “rural development” and “community development” According to Oso (2002), community development does not refer to geographical togetherness but refers more to a set of social relationships or a network of interrelationships between people living in the same locality. So, it emphasizes the relationship among people, rather than their living together in a geographical area. In this sense, according to Oso (2002), a community could either be rural or urban. They can also be dispersed individuals. What is most important is that such individuals or groups should share the same or similar values, characteristics or interests. Therefore, there can be community of farmers living in the rural or urban areas, there can be community of teachers widely dispersed, amongst other communities.

To further understand the idea of community broadcasting, Oso (2002) explained that community development rejects the paternalistic, top-down approach often implied in the concept and practice of rural development. It focuses on the action of self-reliance and regular participation by the community in the development process. It is a democratic people-centred model of

development, which tries to satisfy the basic needs of the people. It involves democratic and popular participation in decision-making, conscientization and mobilization and empowerment of disadvantaged social groups so that they can defend and advance their social and political rights and hold their elected leaders accountable, among others. (Oso, 2002, P. 161).

From the conceptual classification so far, community broadcasting implies that a broadcast station should be owned by members of a particular community, operated by them and used to advance the common interest or goals of such a community. Although the Nigeria Broadcasting commission, NBC (2010) identified community broadcasting as a type of broadcasting allowed in Nigeria, community broadcasting is non-existent yet in the country. Those that should ordinarily qualify as one operate contrary to the tenets of community broadcasting. For instance, UNILAG FM was originally licensed to be an academic-based community radio, but it has turned out to be a commercial radio in its operations. It is mostly operated by professionals (instead of students) and it airs commercials just like other commercial stations in the country.

Despite its unavailability in Nigeria, community radio has been identified as one of the best forms of radio broadcasting that can be used to facilitate social development. Writing on the power of community broadcasting, Centre for International Media Assistance, CIMA (2007) noted that community radio serves as the most trusted agent in town that brings change. It also noted that community radio plays a vital role in building vibrant communities, in mobilizing groups to action by informing and empowering citizens, in giving voice to the marginalized groups of society and in bringing community needs to the attention of local and even national governments. CIMA (2007) further observed that the scope of the actual and potential impact of community radio is wide ranging, as are challenges associated with community development.

It involves broad participation by community members often on a volunteer basis and the ownership and control of the station by the community through a board of governors that is representative of the community and responsive to the diversity of its needs. It also involves community organization, joint thinking and decision making, all of which entail great potential for empowering communities and building a democratic society (CIMA, 2007).

Although the power of community radio to mobilize groups and bring change to societies is well recognized, this power can also be manipulated to spread hate and violence, as was the case in Rwanda in 1994. Moreover, issues surrounding access, participation and language have been identified as some of the challenges facing community radio. According to Oso (2002), the possibility of everyone in the community to have equitable access for participation in decision making is a major issue. Often times, it is the case of manipulated participation where only few privileged people have access. Beside, the English language has taken dominance over indigenous languages in Nigeria, especially in the Broadcast industry. This has created great barrier between the broadcast industry and majority of Nigerians who are illiterates and do not understand the English language. Therefore, there is a need for community broadcasting to be done in the language the people best understand. If these challenges are addressed, community radio remains the medium of community development par excellence (Oso, 2002).

Role of Radio in Spreading Agricultural Innovations

There are several problems facing the Nigerian agricultural sector as earlier discussed. According to Yahaya (2003), agricultural communications as indeed any development communication accelerates interaction among farmers, leads to improvement in the quality of information output and confers statue or legitimacy on agricultural issues. It can also act as an institutional catalyst

which departments, groups, organizations, institutions and governments can use to mobilize people for agricultural development.

Mboho (2009) noted that although broadcasting cannot address the problems facing agriculture in Nigeria, it can however be used to draw attention to the issues and also embark on programmes to sensitize governments and other stakeholders. Soola cited in Mboho (2009) believes that even illiterate farmers, who are largely unknown or supported by the government or financial institutions can be information conscious and instructed if the broadcaster is sensitive to the farmer's culture, tradition and farming practices. For example, Perrazon in Mboho (2009) reported that Malawi operates an extension service which reaches farmers through extension agents, training centres and through the mass media. The Extension Aids Branch (EAB) broadcasts four half hours of radio each week.

Like Malawi, Nigeria can use radio broadcasting to facilitate discussions and solutions on the numerous challenges facing farmers in the country. These challenges include infrastructural problems, manpower/skill development needs, socio-cultural problems and economic problems. Others are government/regulatory policies and environmental factors (Okuneye, 2002). Radio, given its unique features, especially the power of community radio, as discussed so far, can be used to mobilize stakeholders towards addressing the issues facing the nation's agricultural sector.

Mboho (2009) noted that the use of broadcasting in disseminating agricultural information is an example of planned communication. McQuail and Windafil cited in Mboho (2001) explained that this role of broadcasting emanates from a collective, organized source with a purpose and clearly specified objectives. Such communication through broadcast media is targeted to a specific section of the population and conforms to established norms (Mboho, 2009). It involves consultations with the people and stakeholders at the conception of messages, and programmes include a general programme encompassing interview of farmers, a music request programme interspersed with farming advice, a daily broadcast of agricultural news information amongst other techniques.

Venkatesan in Mboho (2009) identified the main roles of broadcasting in agriculture to include the following:

1. Broadcasting makes farmers aware of new techniques and encourages them to approach extension agents for more details. It is one of the quickest ways of reaching a large number of farmers in a very short time and therefore useful in times of emergencies such as a large pest attack.
2. Broadcasting can be effectively used to announce meeting points, training dates, work programmes, providing farmers with information on a wide range of topics of interest to them besides technology, such as new prices, materials available in the market, agriculture policy, changes and so on.
3. Broadcasting has the advantages of allowing extension services to communicate with farmers and others to make them aware of new developments in agriculture.
4. Broadcasting professionals and agricultural communicators should always seek improvements in the quality of agricultural messages. They should provide farmers with access to multiple sources of information rather than make the media mouth piece of the 'official' agencies. They should also bring about complementarities between the mass media and face-to-face extension series in the field.

In addition to provision of information on land preparation, planting materials, plant growth, harvest and storage and information on biotechnology as identified by (Mboho, 2009), broadcasting can also be used to facilitate access to small-scale loans and acquisition of helpful ideas about agricultural practices in the country. These agricultural ideas are the innovations, which this study refers to.

Theoretical Framework

This study is guided by development media theory, agenda setting theory, diffusion of innovations theory and expectancy value theory.

Development media theory presupposes that the mass media should serve as facilitator of development goals among developing countries. Folarin (2002) pointed out the major tenets of the theory as originally propounded by Dennis McQuail. These include the need for the media to accept and carry out positive development tasks in line with nationally established policy, and the media's freedom to be opened to economic priorities in line with nationally established policy. He also noted that the media should give priority in their content to the national culture and languages.

Similarly, agenda setting theory describes power to the media to determine the issues that should serve as basis of discussion or thought in the public. According to Folarin (2002:75), "agenda-setting theory does not ascribe to the media the power to determine what we actually think but it does ascribe to them the power to determine what we are thinking about. For any issue to become an agenda, it must be frequently reported, prominence should be given to it, with same degree of conflict generated and must have commulative media specific effects (Folarin, 2002).

Diffusion of innovations theory on other hand, as originally proposed by Rogers in the early 1960s, is described as the process in which an innovation is communicated through selected channels over time among members within a given society (Baumann, 2008). The word 'innovation' refers to a new idea, product, technique or practice while the word 'diffusion' refers to the process of spreading such idea within a target group. Rogers (2003) adds that diffusion is a social type of communication process in that the message transmitted are designed to convey a new idea, reduce uncertainty, provide information and promote social change. This social change then leads to modernization in which individuals change from a traditional lifestyle to a more complex technologically advanced and rapidly changing standard of living (Baumann, 2003).

The basic elements of diffusion process include the innovation, communicated through a channel, over a period of time and among members of a given social system. For an adopter of the innovation to confirm the innovation, he/she has to go through awareness or knowledge stage, persuasion stage, decision stage, implementation stage and confirmation stage (Rogers, 2003).

The acceptance or rejection of the innovation also depends on the characteristics of the innovation, which include the innovation's relative advantage, compatibility, complexity, opportunity to experiment and observe the innovation. Adopters are also categorized into five: innovators, early adopters; early majority; late majority and late adopters or the laggards. The concern of this study is not to test the adoption of agricultural innovations through radio in Lagos, but to examine the awareness of agricultural innovations through radio among peasant fish farmers. This covers just a stage in the innovation decision process of this theory.

Lastly, expectancy – value theory assumes that personal motivation for media use is based on the idea that the media offers rewards which are expected by potential members of an audience, on the basis of relevant past experience (McQuail, 2005, p. 427). Put in a simple way, what this theory is saying is that audiences attend to the mass media based on the rewards expected from

such media, perhaps due to experiences of rewards derived. Thus, our concern in this paper is to find out the agricultural rewards expected by farmers and the rewards derived, over the period of attending to radio broadcasting.

Putting all the four theories together, this study has the aim of understanding the role of radio towards agricultural development, the agriculture-based agenda set so far, the diffusion of agricultural ideas among farmers and the values given to farmers for attending to radio broadcasts.

Empirical Study

In a paper titled “Adoption of Fish Farming Innovation in Nigeria,” Alawode (2012), the research documented the profile of fish farmers, practices in fish farming, source of innovation before adoption and fish-farming as an investment. Using a structured instrument, the researcher interviewed thirty-five fish farmers. The study reveals that fish farmers are primarily individual with informal training in the practice. The farmers main source of information for adoption is the interpersonal medium. The revelation of this study is a further confirmation that there is no programme on radio that is structured on innovation to help the farming profession aside from Jingles and Commercials, the findings is that there is no programme designed for peasant farmers on radio to help them benefit from the innovative trends in fish farming.

In the same vein, in a study titled “Broadcast Programming and Nation Building: A study of the Programming pattern of Lagos Broadcast Stations” Adeyemi (2009) show case the programming pattern of selected Lagos Based Radio and Television Stations and ascertaining the level of functionality and their contribution to nation building. The study carried out a sample of four radio stations, two government and two privately owned stations. Content Analysis was adopted in the study of programme schedule between January and April 2007.

The findings reveals the fact that entertainment level is so high in all the noted stations, while development-oriented programmes in the areas of Health, Education, Business, Agriculture, Women and Youths are very low. The findings also take the same line with the findings of this paper which reveal that there is no programme structure to make available technology innovations for farmers on the radio. Therefore, it is the candid opinion of this that a radio programme that is designed to introduce innovative technique to fish farmers need to be put in place. Afterall, Farming vis a vis agriculture is among the core sector of the nation’s economy.

Method of Study

In-depth interview was used for the study. This method has the advantage of probing social life in its natural habitat and gaining qualitative insight into the subject of enquiry (Barbbie, 2005, Berg, 2007).

Population of Study

The researcher investigated peasant fish farmers living in Ilaje and Oko-Agbon communities, suburb of Yaba Local Council Development area of Lagos metropolis. The population are largely people of low socio-economic and educational status, whose primary occupation is fish farming. They speak Yoruba and Ogu language, and pidgin English, to some extent. They consist of both men and women fish farmers. One of the respondents was the head of the fish farmers association in the area.

Sample Size and Sampling Technique

Four fish farmers were interviewed consisting of a woman and three men. They were selected through purposive sampling technique. The sample used was based on the researcher's consideration that they would be able to provide necessary information needed to achieve the aim of the study.

Instrument of Data Collection

The researcher used a question guide drawn from the research questions and a notepad for writing the responses.

Method of Data Analysis

Data was analyzed through descriptive qualitative analysis, using phrases and conversations in the interview. This follows the story-telling approach.

Findings of the Study

RQ1: What is the depth of farmers' exposure to radio programmes on agriculture?

Respondents were asked if they had radio sets and the extent to which they listened to it. They were also asked the extent to which they listen to agricultural programmes on radio. The following are some of the conversations

Int: Do you have a radio set?

R1: Yes

R2: No

R3: Yes

R4: Yes

Int: How often do you listen to radio programmes?

R1: Sometimes. You know this our work is demanding.

R2: I don't have time. I go to work very early and...

R3: Yes, I listen to programmes very well

R4: A lot of times, I tune on my radio set

Int: Which stations do you often listen to?

R1: Which other do you expect. It is only those ones that speak Yoruba.

R4: I listen to Radio Lagos, Choice FM and sometimes, Wazobia.

Int: Do you listen to agricultural programmes?

R1: Of course, but not often sometimes when they cast news.

R3: Yes, sometimes

R4: Yes, they broadcast agricultural programmes, but most times, they are jingles.

All the respondents, except respondent 2 (who did not have a radio set) said they receive agricultural-based programmes on radio but not often. One of them revealed that in most cases, such programmes are jingles, calling them to buy some form of farm input, machines or new chemicals.

They agreed that agricultural based programme on radio is not common. This implies that peasant fish-farmers are not adequately exposed to agricultural-based programmes on radio.

RQ2: How well are farmers aware of agricultural innovations through radio programmes?

The researcher asked whether the farmers receive radio programmes on agricultural innovations that could bring development to their occupation. Below is an excerpt of the discussion.

Int: Do you receive new ideas on fish farming through radio programmes?

R1: No

R3: I don't think so

Respondent 4 provided much insight into most of the questions asked, being the head of the fish farmers' association.

R4: Which new idea? I inherited virtually everything I know today in this business from my father. And I don't think radio provides any new idea because the producers of the programmes lack adequate information on agriculture. They don't know anything about fish farming. We are the one that need to teach them and not them explaining to us. I have stayed in this work for so long and I know it inside out. I don't work in small rivers to catch fish. I go into the deep sea, using my flying boat. You see, the major problem we are facing is money. We need money to expand our business and to buy better equipment, but we have often been frustrated. Recently, Lagos state Government came to us to inform us of FADAMA project through which we could get loans and financial assistance. We fulfilled all the requirements but till today, we have not received anything from them. It was the officials that embezzled the money...

Int: So what did you do about the case. Didn't you petition them?

R4: Petition? Are they not the same people that will receive the letter of petition. They will only throw it in the dust bin.

Int: So what are you saying in essence about the role of radio in helping you to get new agricultural ideas?

R4: My brother, radio is just making noise. There is nothing new that they are telling us that we don't know.

Other respondents shared the same view, that they do not learn new things related to their occupation on radio.

R3: How useful are radio programmes on agriculture to individual farmers and in stimulating interaction among farmers?

Int: Do you think radio programmes on agriculture are useful to you and your fellow farmers?

R1: May be

R3: Well, I cannot really tell because I can't speak for others. But as for me, I don't think I get much from radio programmes on agriculture.

R4: The only area I may say radio programmes are useful to me and fellow farmers is the area of commercials. Through radio commercials, we hear of new products, especially machines. But they are often too expensive and are meant for the rich dealers. The list price of any new local engine boat is four hundred thousand naira. To get a good one, you need not less than eight hundred thousand naira. But you can build a local one around seventy thousand naira.

Int: So what is the usefulness of radio programmes on agriculture to you?

R4: Beside advertisements, radio programme on agriculture are not useful to me. Even the advertisement is meant for rich people and not people like us. So, what is the usefulness?

The responses under the third research question show that radio programmes on agriculture have little or no impact on the peasant fish farmers, both as individuals and group.

Discussion of Findings

The study found low level of peasant farmers' exposure to agriculture-based programmes on radio. This can be attributed to the uncommon nature of such programmes on air and a disconnect between the few ones available and their target audience. The only form of agriculture – based

programme the farmers seem to know about is commercials and jingles. These help them to be aware of modern agricultural implements and machines but the products advertised are in most cases unaffordable to the peasant farmers.

One of the respondents did not have a radio set, this is due to his lack of understanding of the major languages used in presenting the programmes on the available stations and the excuse of 'being busy' at work. The respondent was an Ogu-speaking peasant farmer who does not understand Yoruba and English Languages. This is an indication that language barrier and low motivation may constitute reasons for non-exposure to agricultural-based programme.

The study also revealed that peasant fish farmers do not learn new things on agricultural-based programmes on radio, except knowledge of new implements and machines gained through radio jingles. Most of the techniques needed to advance their occupation are not often learnt through radio broadcasts. This implies that agricultural innovations are not usually aired on radio programmes, to a large extent.

At this point, the farmers believe that radio programmes on agriculture are not useful to them since they do not contribute to acquisition of new ideas and knowledge that can aid their occupation. The only area which they believe offers rewards to them is in the advertisement of new agricultural technologies and inventions, which in most cases are not affordable to them, as earlier noted.

The implications of the findings can therefore be summarized as follows:

Radio programmers and stakeholders in Lagos do not set agenda on agricultural programmes; they do not also use the media for agricultural development purposes; and they do not diffuse agricultural innovations among farmers. More so, they do not give the needed values to the listeners who in most cases do not even expect such values from the media based on their past and current experiences.

The above scenario shows that radio broadcasting in urban Lagos has failed in its responsibility of facilitating advancement among farmers. This also means that the power attributed to radio as discussed by scholars (Oso, 2002; CIMA, 2007; Myers, 2008; Adeyemi et al, 2008; Mboho, 2009) has failed in this regard. The tenets of community broadcasting earlier discussed by Oso (2003) and CIMA (2007) have also been grossly neglected by radio broadcasters in Lagos, most especially in peasant farming. There is obvious disconnect between the designed agricultural radio programmes and the peasant farmers who are the target audience.

Conclusion

The study holds that radio is not yet a tool of diffusion of agricultural innovations among peasant farmers in Lagos. The greatest implication this may hold for fish farming in Lagos is that there may be continued acute shortage of fish supply for human consumption or fish crisis. This is because the major stakeholders (Peasant fish farmers) are not empowered with vital information to advance the occupation.

The challenges now rests on radio stakeholders to wake up to use the power of the radio broadcasting to inform, educate and enlighten peasant farmers about new ideas on modern fish

farming practices. Community-based approach should be adopted to stimulate interactions among farmers toward accessing and utilizing fish farming innovations to increase fish production in the country.

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