



## Effect of Broadcast Digitalization on Agricultural Information Dissemination in Nigeria.

**Okunola, Akinbode Michael**

*Department of Agricultural and Resource Economics, Federal University of Technology, Akure, Ondo State.*

*Email: okunolakinbode@gmail.com*

### Abstract

Broadcast digitalization with its enormous benefits to the broadcasting industry will improve the quality of content of programs delivered by television stations. Africa has a switchover date of June, 2017. For Nigerians to have access to television broadcast once the switch over is completed, they must purchase high definition television sets or the set-up box. The awareness among urban dwellers in Nigeria have resulted in households switching to receiving digital broadcast transmission by purchasing digital set-up boxes. However, the rural communities which are agrarian and are responsible for the production of food and fiber for the people and provision of raw materials for the industry are being left out of all discussions by the stakeholders in the country. Many of the farming households reside in the rural areas and they depend on agricultural extension systems to improve on their production. Agricultural extension uses mass media as a means to deliver agricultural information on innovations and technology to the farmers and television programs targeted towards agriculture are employed. The farmers have the opportunity to hear and see new agricultural practices which are largely held on state-owned television stations. Due to the inherent poverty among the rural farmers and in the bid to make sure they keep having access to agricultural information through the mass media, specifically, the television, this study looks into what the Nigeria government should do to ensure food production and by extension, food security and overall rural economy development despite the need to improve broadcast technology in Nigeria.

#### Keywords:

Broadcast, Digitalization, Agricultural, Information, Extension, Technology.

### 1. Introduction

Agriculture is one of the most important sectors of the economies of developing countries one of whom is Nigeria. Interestingly, the Nigerian economy during the first decade after independence could reasonably be described as an agricultural economy because agriculture served as the engine of the growth of the overall economy (Ogen, 2003). From the standpoint of occupational distribution and contribution to the Gross Domestic Product, GDP, agriculture employs about 50% of the labour force of Nigeria and contributes between 40% and 50% to the

GDP of the country. This sector is however characterized by risks and uncertainties which requires timely information to overcome, hence, the development of agricultural extension which ensures adequate flow of production, processing, storage, marketing, weather and other information to the farmers. It is the information bridge between research institutes and farmers and as well ensures information flow among farmers.

According to Nwankwo and Orji (2013), agricultural extension service is the out-of-school educational process to help farmers solve their day to

day agricultural problems. It disseminates agricultural research findings to farmers to improve their analytical capacity and communication skills to help them in their farming and farming related activities (Bruin and Meerman, 2010). According to Ango *et al.*, (2012), agriculture is becoming increasingly information sensitive. Hence, access to information has become a pre-requisite and a valuable resource for agricultural development (Padre *et al.*, 2003). In this context, information is needed to exploit opportunities in time, raise awareness about the potential negative impacts of current choices and to get to know about opportunities of other farmers in order to search for better opportunities and sustainable solutions (LEISA, 2002).

Nwankwo and Orji (2013) say in Nigeria the limited number of agricultural extension agents, 1:4000 farmers, makes it impossible to reach all farmers by inter-personal means (Mohammed and Olabode, 2007). The limited coverage of conventional extension methods necessitated the use of mass media methods in extension communication. Mass media enables the extension staff to operate more effectively. Agbamu (2006) grouped mass media system into print, screen and broadcast technologies. In Ango *et al.*, (2012), the importance of the mass media means of communication is as such important that its roles cannot be underscored in the process of positive change. Van den Ban and Hawkins (1996) opined that the mass media does this by setting agenda for important discussing topics, transferring knowledge, forming and changing opinions and behaviors. The media is also believed to create awareness and diffuse a personal value system favourable to innovations, mobility achievement and consumption (Nwachukwu, 2003).

Mohammad *et al.*, (2012) said broadcast media are powerful communication tool (Chapman, 2003; Cremedas and Lysak, 2011) and they also have proved the most effective media in promoting agriculture and development in rural areas (Nakabugu, 2001; Binswanger *et al.*, 2010). Radio and television are the most effective tools in communication for the support of development (Hussain, 1997; Nazari and Hassan, 2011). Though radio is acknowledged as the most important medium for communicating with the rural populations in developing countries (FAO, 2001; Nazari and Hasbullah 2010), television also has proved to be a profound means of communication and potentially capable of leaving tremendous effect on the society (Verhoeven, 2010). In comparison to radio, television has a further privilege of 'seeing' rather than 'listening' only. Although the cost and expenditure of television exceeds that of radio, it is more effective

and powerful from the educational viewpoint (Elman, 2010).

## 2. Television Broadcasting in Nigeria

Television broadcasting for many years has been through the analog transmission. Every household whether farming or not requires land-to-air antenna which will transmit signals from various channels of television stations that are reachable to their television sets. However, on June 16, 2006, a resolution on digitalized broadcasting in Europe, Africa and Middle East as well as the Islamic Republic of Iran was reached in Geneva, Switzerland at an international conference organized by the International Telecommunication Union (ITU). A deadline of 17th June, 2015 was agreed upon for the effective take off of digitalization of the broadcast media (Akinreti *et al.*, 2013).

According to Onuh (2010), the digital television transition refers to the shift from analog broadcasting to digital broadcasting. The study said that digitization programme in Nigeria commenced in Abuja on June 3, 2008, following a meeting of stakeholders in the broadcast industry where the forum emphasized the need for Nigeria to embrace the new technology. Reports showed that Nigeria had set June, 17, 2010 as the switch-over date from the current mode of broadcasting to the digital terrestrial broadcasting; the date was three years before the June 17, 2015 deadline for the entire world set by the International Telecommunication Union (ITU) after its congress in Geneva, Switzerland in 2006. However the country officially started the digitization of its broadcast industry in December 2007 following late President Umaru Musa Yar'adua's approval, directing the National Broadcasting commission (NBC), the industry's regulator to set in motion and pilot the programme towards the target date (Adeniyi 2009).

Hence, when Nigerian government completes the switchover from analog transmission to digital television transmission, every Nigerian household will have to procure a set-up box which would enable them to view channels on their television sets at their homes. This set-up box is yet to be produced in commercial quantity considering the vast population of Nigerians both urban and rural population. Thus, when these switchovers are completed, every household would have to purchase this set-up box to be able to view television programmes from the comfort of their homes. While the benefits of this digital switchover cannot be over-emphasized, the impact of the switch-over on agriculture and rural development has been relegated. Studies have shown that farmers in the rural areas and those in the urban centers rely on mass media for

agricultural information to boost their production practices. It should also be noted that these farming households are at the receiving end of ravaging poverty in the country. Thus, they will be disadvantaged in the purchase of set-up boxes if they are to keep enjoying the benefits of these televised agricultural programmes. Despite the enormous benefits of the digital television broadcasting, the overall impact of agricultural television programmes on agricultural production cannot also be neglected. Therefore, the question is: what will happen to agricultural information dissemination via television broadcast and entire rural development once this switchover is done?

### 3. Television Broadcast and Agricultural Information Dissemination

According to Pur and Gwary (2008) in “Determinants of Effectiveness of Electronic Media in Agricultural Information Delivery in Yola North Local Government Area of Adamawa State, Nigeria”, radio and television have been more extensively used in most developing countries. Television clubs or groups in India, Sudan, Ivory Coast and Brazil have been successful in transferring and spreading of information to farmers (Wele, 1991). According to Baxter (1989), radio and television closely attuned to farmers’ needs and conditions and timed to complement agricultural operations can be a strong adjunct to field extension service – but not a substitute for them. Given the continuing expansion of market oriented agriculture and the increasing complexity of input requirements, there is a need for a continuous education of farmers and extension staffs, and radio and television would be a good way to disseminate information to them. The study further stated that most (50.9%) of the farmers own both radio and television.

Nwankwo and Orji (2013) in “Assessment of Mass Media Contributions to Agricultural Technology Adoption in Owerri Agricultural Zone of Imo State, Nigeria”, the mass media methods of agricultural innovation dissemination available in the study area include internet services, television, radio, bulletins, newspapers and magazines. Others are pamphlets, handbills and posters. Based on multiple responses, the methods most available and most utilized were radio and television sets. While 50 respondents (83.33%) had access to radio, 45 respondents (75%) had access to television. In concluding, the study said the use of mass media for information dissemination has become necessary. The study adduced reinforcement of previously known agricultural technologies, credibility to already known ones, and reaching different persons

of different strata of the society at the same time as the reasons for this necessity.

Using a 5 point Likert scale (Ango, et al., 2012) in “Farmers’ Perceptions on the Role of Mass Media in Sustainable Agricultural Development: A Case Study of the Northern Zone of Sokoto Agricultural Development Project (S.A.D.P.), Nigeria” stated that 48% of the respondents agreed that television and radio were more beneficial in disseminating agricultural information. On the other hand 0.8% of the respondents disagreed, whereas 41.7% of the respondents strongly agreed that radio and television program were beneficial. The study further said the results indicated that majority of the respondents were in favour of radio and television in disseminating agricultural information which also agreed with Padre *et al.*, (2003) who reported that short time radio and television programmes were acclaimed to be the most effective media means for sharing agricultural scientific knowledge to the masses.

Further, regarding the convenience of use of radio and television, the study found out 59.2% of the respondents agreed that the use of television and radio is more convenient than any other agricultural communication methods; 2.5% were undecided on convenience whereas 1.7% disagreed on the convenience of radio and television in broadcasting agricultural programmes. In terms of efficiency and use of radio and television 50.8% strongly agreed that radio and television were more effective, whereas 0.8% expressed their disagreement. Regarding the broadcast of new agricultural practices, the study found out that 41.7% of the respondents strongly agreed that farmers adopt the new practices disseminated through radio and television; however, 35.8% felt that new practices broadcasted were mostly adopted. All the same, 13.3% disagreed with the adoption. On the whole, most of the farmers in the study area adopted new practices due to availability of television as well as the portability of radio.

### 3. Conclusion and recommendations

From the above, this study has established the importance of mass media in agricultural information delivery for the purpose of ensuring increased productivity among the farming households in Nigeria. Specifically, it is apparent that the role of television broadcast cannot be underscored as it does not just make information available to the farmers, it also affords them the opportunity of seeing what is being taught, hence, the reason why audio-visual broadcast is a better means of information delivery in agricultural extension. It also established that for Nigerian homes to receive transmission after the

switch over to digital television broadcast, the set-up box which at the moment is not yet affordable for a good percentage of the urban populace would have to be purchased by the poor farmers in the rural dweller if they want to continue to benefits from the mass media agricultural extension service. Hence, if proper care is not taken, the technological benefits of the digital switch over will becloud the judgment of the broadcasting stakeholders that agricultural concerns will not be put into considerations. Thus, when all television stations switch to digital broadcasting, farmers in the rural areas would be denied access to the agricultural programmes which aid their production. Also, the fact that monthly subscription which at the moment is at least ₦1, 000 would inflate the production cost to the farmers if they must harness the benefits of agricultural information from the agricultural programmes held on the state-owned television stations may deny the farmers timely delivery of agricultural information.

With insufficient agricultural extension staff to cover the existing farmers to disseminate agricultural innovations, the use of mass media cannot be over-emphasized. Monthly cost to access television programmes after the switch over, specifically, agricultural programmes by the farmers may scare the farmers away and thus deny them access to up-to-date agricultural information and this will have adverse effect on production and food security of Nigeria. Therefore, since almost all television stations hosting agricultural programmes are state-owned, the Federal government of Nigeria should exclude television stations owned by the state governments in the interest of food security, rural economy development and overall national development. Thus, other television including the national and private television stations may switch to digital broadcasting to move with the technology tide in the broadcast industry while allowing state-owned television stations to keep broadcasting on the analogue transmission which will ensure that farmers which are resident in the rural areas of these states of the federation to keep playing their key role of agricultural information dissemination to the farming communities.

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