International Journal of
Development Strategies in Humanities, Management and Social Sciences
p-ISSN: 2360-9036 | e-ISSN: 2360-9044
IJDSHMSS
February, 2020
Vol. 10, No. 1

Formats of Radio Stations' Agricultural Information Dissemination Among Cassava Farmers in Nigeria

[1]Olusegun Ojomo &
[2]Joseph Dayo Odigie
[1&2]Department of Mass Communication, Babcock University, Ogun State, Nigeria

Abstract

Radio information is germane to cassava production. Past researches showed that radio stations disseminate agricultural information to farmers in Nigeria. Despite the effort of radio in this direction, cassava farmers have not been able to satisfy both local and international demands. However, this study investigated formats radio stations use to disseminate agricultural information to cassava farmers in Southwest, Nigeria. The study adopted multi-stage sampling technique for the selection of 593 cassava farmers who participated in this study. Findings revealed that radio stations used News (27%), Discussion (29.1%), Interview (19%) and Jingle formats (11.8%) to disseminate agricultural information to cassava farmers in Southwest, Nigeria. The study revealed that many cassava farmers' agricultural information needs were on loan facility (33.7%), availability of agricultural equipment (26.3%), availability of seedlings (17.5%), and climate and planting condition (15.6%). It was recommended that, radio stations should add formats such as lecture or straight talk, spot announcements, testimonial and entertainment to the formats already being used to disseminate agricultural information to cassava farmers. Radio stations should identify information needs to cassava farmers before disseminating agricultural information to them.

Keywords:
Formats, Radio agricultural information, Agricultural information needs, Information dissemination

Corresponding Author:
Olusegun Ojomo

Background to the Study

Meeting the demand for food is an essential pre-requisite for successful economic, social and political development, and it can be achieved either through domestic production or imports (Ani, Umunakwe, Ejiogu-Okereke, Nwakwasi and Aja, 2015). Cassava is an important regional food source for about 200 million people (nearly one-third of the population) of sub-Saharan Africa (Abdoulaye *et al*., 2014). In Nigeria for instance, cassava provides food and income to over 30 million farmers and large numbers of processors and traders (Abdoulaye *et al.*, 2014). The high output of agricultural research in recent times has led to a large pool of new agricultural technologies which must be disseminated to farmers. Appropriate formats for dissemination of such technologies and other information must be considered by radio stations. In essence, information dissemination is germane to cassava production. Unarguably, it is information that can make cassava farmers to progress in production activities such that they can satisfy both local and export demands. Information supports decisions, decisions trigger actions and actions affect the achievements or performance of the system (Osikabor, Oladele and Ogunlade, 2011). Cassava farmers may not be able to take logical decisions as they pertain to cassava production activities without relevant agricultural information being disseminated to them. In this regard, radio becomes a critical tool for disseminating agricultural information to cassava farmers in Nigeria. Cassava farmers constitute a particular group of farmers whose information needs is specific. To improve the production capacity of cassava farmers, their information needs have to be met. For instance, cassava farmers would need information on availability of seedlings, loan facility, and availability of modern tools, climate conditions, storage facility, and where to sell their cassava, among others. All over the world, radio stations try to reach out to farmers, using different formats depending on the type of information being disseminated. Further, radio stations use different programme types to disseminate agricultural information to farmers. Therefore, it is necessary for us to know the formats radio stations in Southwest, Nigeria use to disseminate agricultural information to cassava farmers.

Objective of the Study

The specific objectives of this study were to:

1. Find out the formats radio stations use to disseminate agricultural information to cassava farmers in Southwest, Nigeria.
2. Highlight possible agricultural information needs of cassava farmers in Southwest, Nigeria.

Although there is evidence that radio stations in Nigeria disseminate agricultural information to farmers generally, there is a dearth of literature on the formats these stations use to disseminate such information. Therefore, this study aims to contribute to literature by bringing to knowledge the formats radio stations use to disseminate agricultural information to cassava farmers, and also their possible agricultural information needs.

Research Questions

The following research questions were designed to guide the study:

1. What are the possible agricultural information needs of cassava farmers in Southwest, Nigeria?
2. What are the formats radio stations use to disseminate agricultural information to cassava farmers?

Review of Related Literature

The Concept of Formats for Dissemination of Agricultural Information

Formats refer to the methods radio stations use in order to make sure that information to be disseminated gets to the target audience. Formats can be likened to the different methodologies teachers use to teach students. For instance, teachers can use the 'play-away method' or 'lecture method to teach students. Information is important to agricultural activities. For a piece of radio information to get to the target audience, radio stations need to use the appropriate format.

Formats of Information Dissemination among Cassava Farmers

Agriculture plays a unique role in poverty reduction through the use of new technologies (Adofu *et al*., 2013). Cassava (Manihot esculenta) is a major food crop and also a major staple food in Nigeria. It continues to play a remarkable role on the agricultural stage in Nigeria. Agricultural productivity growth becomes difficult without the radio using appropriate formats for dissemination of agricultural information to farmers. Information dissemination and the enlightenment role of radio is the commonest of its functions (Soola, 2002). Available literature on types of agricultural programmes farmers listen to in Nigeria showed that radio disseminates agricultural information to farmers. Farmers' information needs are many, and they must be met for them to make progress in their agricultural activities. Odini (2005), asserts that identifying information needs is the first step towards satisfying information needs and that information seeking processes involve a number of steps before identifying information sources and needed information. Generally, farmers need information to improve their farm production. Dissemination of information to farmers can increase the output of their farms. Proper market information is the basic need of farmers because it enables farmers to make relevant and accurate decisions (Leroux *et al*. 2001). Market information enables the farmers to make decisions regarding what to produce, how to produce and whether to store the products or not (FAO, 2005).

Radio agricultural programmes are timely and can extend messages to target audience irrespective of location, socio-economic issues, topography and distance (Omenesa, 1997). Radio programmes have been used for dissemination of agricultural information for better farmer performance (Enitan, 1988; Haider, 2014) both in developed and underdeveloped countries. Radio-agricultural farmers programme is a kind of 'school in air' where farmers are the students or audience. Radio-agricultural farmer programme covers all components of agriculture namely crop, animal, agro-forestry, agro-fishery, and soil conservation (Njoku, 2016). There is the need to encourage the small-scale

cassava farmers to access and possibly use more information as a means of increasing productivity. The information could range from market prices, new varieties/techniques or even available government services towards cassava production and utilization. Such information when at the disposal of the small-scale farmer may substantially influence the drive with which farmers execute their farming operations (Osikabor, Oladele and Ogunlade, 2011).

Radio uses ten major formats for promoting development. These are news, group discussion, lecture or straight talk, interview, testimonial, entertainment, magazine, jingles, spot announcements and poetry (Ewi) (Soola, 2002).

Theoretical Framework

The study hinged on uses and gratifications theory. That people use the media, is central to the uses and gratifications theory. The audience use the media to get what they need in terms of knowledge, education, enlightenment and information. Contextually, cassava farmers use the radio. They listen to agricultural programmes on radio, for instance, they listen to news, discussion programmes, radio drama, public announcements and jingles that give general information on how to increase their productivity. Cassava farmers are not passive receivers of radio and television messages and as a result they are able to selectively choose, attend to, perceive and retain the messages depending on their needs. Therefore, it can be said that because cassava farmers use the radio to get their information needs, then the uses and gratifications theory is relevant to this study.

Empirical Studies

Radio uses different programme formats in disseminating information among categories of people. The study conducted by Ojebode, cited in Soola (2002), revealed that radio uses ten major formats for promoting development. These are news, group discussion, lecture or straight talk, interview, testimony, entertainment, magazine, jingles, spot announcements and Ewi (poetry). The study's findings corroborates the findings of Manyozo (2007), which revealed that various radio programmes designs have been used in attempt to provide the greatest reach to farmers; these include drama sketches to illustrate innovations being disseminated. Manyozo's findings further revealed that other programmes have been produced in a magazine format, featuring drama, topical issues and discussions, interspersed with jingles and traditional music.

Methodology

Survey research design was used for this study. The population of the study comprised selected cassava farmers from Ogun, Osun and Oyo States in South West, Nigeria totalling 6,353. From this number. Taro Yamane formular was used to determine a sample of 593 cassava farmers who participated in the study. Multi-stage sampling technique was used. . Firstly, 3 states (50%) out of 6 in South West, Nigeria were selected using simple random sampling technique. This led to the selection of Ogun, Osun and Oyo States. Fifty percent (50%) of local governments were selected in each state in order to adequately represent the cassava farmers in each state. This process led to the selection

of 10 local governments in Ogun State, 15 in Osun State and 17 local governments in Oyo State.

The next sampling technique was proportional sampling technique which ensured that participants were represented relative to the size of their population in each of the selected sub-unit. Consequently, cassava farmers were selected proportionally by states and by local governments. Cassava farmers in Ogun State constituted 63.43% of the total number of cassava famers in the three selected states (3,765). Osun State constituted 26%, while Oyo State constituted 10.57%. Therefore, out of a sample of 593, Ogun State had 376 participants (63.43%); Osun State had 154 participants (26%); while Oyo State had 63 participants (10.57%). Structured questionnaire was used to gather data from the respondents. Five hundred and ninety-three (593) copies of the questionnaire were administered; 97.5 percent return rate was recorded with retrieval and validation of five hundred and seventy-eight (578) copies of the questionnaire.

Data Presentation and Analysis

Research Question One: What are the formats radio stations use to disseminate agricultural information to cassava farmers?

Fig. 1: Radio Stations Cassava Farmers Listened to

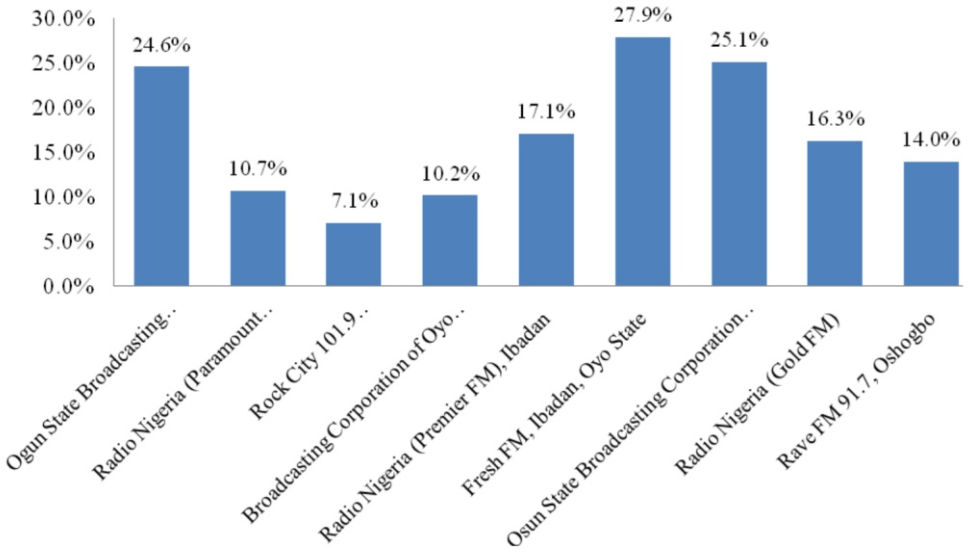

Fig. 1 illustrates that majority of the participants listened to Fresh FM, Ibadan Oyo State (27.9%), followed by those who listened to Osun State Broadcasting Corporation (OSBC) (25.1%); while fewer respondents listened to Broadcasting Corporation of Oyo State (BCOS), Ibadan (10.2%) and Rock City 101.9 FM, Abeokuta Ogun.

Table 1: How Often Cassava Farmers Listen to Radio

Variable	Frequency	Percent
Not at all	27	4.7
Not often	162	28.0
Often	188	32.5
Very often	201	34.8
Total	578	100.0
Mean ($\bar{x}$)		**2.97**
SD		**0.90**

KEY: ***Decision rule if mean is ≤ 1.49 = Not at all; 1.5 to 2.49 = Not Often; 2.5 to 3.49 =Often; 3.5 to 4= Very Often

Table 1 indicates that respondents listened to radio often ($\bar{x}$ = 2.97). This implies that cassava farmers in South West, Nigeria listened often to radio.

Fig. 2: Radio Stations' Formats of Broadcasting Agricultural Information

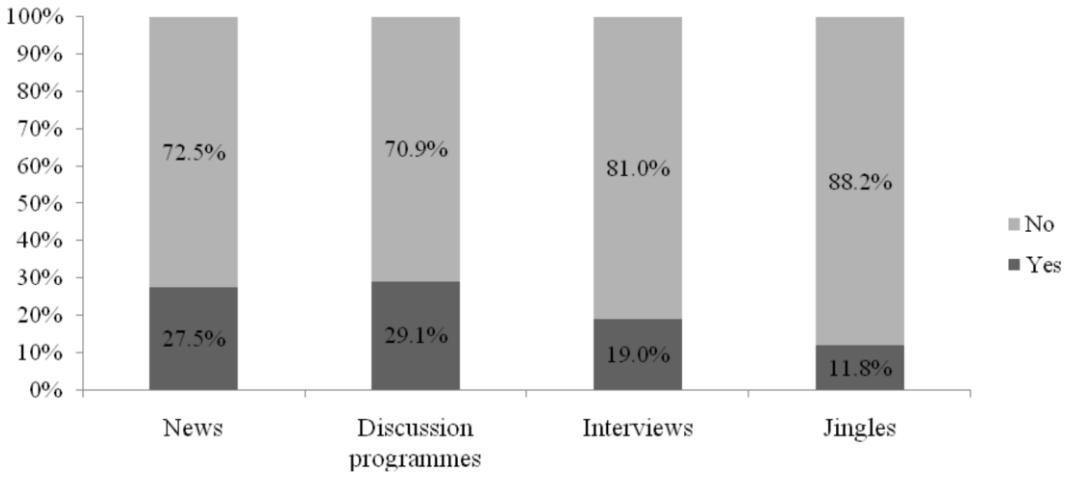

Fig. 2 indicates that many cassava farmers were exposed to agricultural information on radio through discussion programmes (29.1%), followed by news (27.5%), interviews (19% and jingles (11.8%). Discussion programmes and news on radio are means by which many cassava farmers can acquire agricultural information.

Fig. 3: Cassava Farmers' Agricultural Information Needs

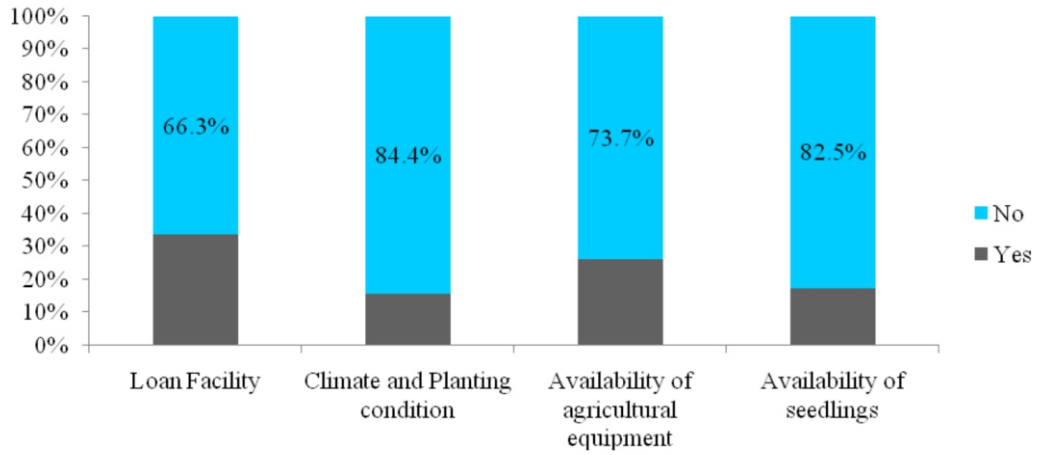

Fig. 3 depicts that many cassava farmers' agricultural information needs were on loan facility (33.7%), availability of agricultural equipment (26.3%), availability of seedlings (17.5%) and climate and planting condition (15.6%). This shows that the demand for information on loan facility was foremost among cassava farmers in South West, Nigeria, followed by availability of agricultural equipment and information on availability of seedlings; while information on climate and planting condition was least demanded by the cassava farmers.

Table 2: How often Cassava Farmers Listen to Radio Agricultural Programmes

Variable	**Frequency**	**Percent**
Not at all	102	17.6
Not often	100	17.3
Often (weekly)	261	45.2
Very often (daily)	115	19.9
Total	578	100.0
Mean ($\bar{x}$)		**2.67**
SD		**0.99**

KEY: ***Decision rule if mean is ≤ 1.49 = Not at all; 1.5 to 2.49 = Not Often; 2.5 to 3.49 =Often (Weekly); 3.5 to 4= Very Often (Daily)

Table 2. shows that participants listened to radio agricultural programmes often ($\bar{x}$ = 2.67). This implies that cassava farmers in South West, Nigeria listened to agricultural programmes on radio often.

Table 3: How Often Radio Stations Disseminate Agricultural Information

Variable	Frequency	Percent
Not at all	113	19.6
Once a week	233	40.3
Twice a week	24	4.2
Thrice a week	120	20.8
Everyday	88	15.2
Total	578	100.0
Mean ($\bar{x}$)		**2.72**
SD		**1.39**

KEY: ***Decision rule if mean is ≤ 1.49 = Not at all; 1.5 to 2.49 = Once a week; 2.5 to 3.49 = Twice a week; 3.5 to 4.49= Thrice a week; 4.5 to 5 = Everyday

Table 3 shows that radio stations disseminated agricultural information to cassava farmers on the average twice a week ($\bar{x}$ = 2.72). This suggests that cassava farmers in South West, Nigeria were not disseminated with radio agricultural information every day.

Discussion of Findings

Research Question 1: What are the formats radio stations use to disseminate agricultural information to cassava farmers?

Data analysis in fig 2 showed that many cassava farmers were exposed to agricultural information on radio through discussion programmes (29.1%), followed by news (27.5%), interviews (19%) and jingles (11.8%). Therefore, findings depict that discussion programmes and news are means by which many cassava farmers can acquire agricultural information. Be that as it may, it means radio stations would need to double their efforts at making sure cassava farmers get relevant and timely agricultural information especially through news and discussion programmes. As regards discussion programmes, it might be better if radio stations could have more of live discussion programmes than recorded discussion programmes; reason being that during live discussion programmes people, especially cassava farmers could phone-in to ask questions that could help them to increase their production. In addition, experienced cassava farmers should be brought on such programmes as guests to inform, enlighten and educate other less experienced cassava farmers on how to increase their production. Moreover, an experienced cassava farmer could be the anchor or presenter of the programme. Because of his wealth of experience, such cassava farmer understands or knows questions that might be agitating the minds of other cassava farmers on how to increase their production. It can therefore be said that the experienced cassava farmer who anchors a discussion programme 'knows where the shoe pinches', and so, he knows the questions his fellow cassava farmers might want to ask. The trained radio producer could be producer of such live discussion programmes. Allowing cassava farmers to present agricultural programmes could literally be termed 'do it yourself'. This, in a way, might encourage cassava farmers to want to listen to radio agricultural programmes and consequently use the information gathered on such programmes to increase their productivity.

Apart from news and discussions formats, other formats such as drama, straight talk or lecture could be used to disseminate agricultural information to cassava farmers as this would afford them the opportunity to get radio agricultural information through different radio formats. This corroborates the findings of Manyozo (2007), which revealed that various radio programmes designs have been used in an attempt to provide the greatest reach to farmers; these include drama sketches to illustrate innovations being disseminated. Manyozo's findings further revealed that other programmes have been produced in a magazine format, featuring drama, topical issues and discussions, interspersed with jingles and traditional music. Radio stations that have not been using these formats could start using them to disseminate agricultural information to farmers, especially cassava farmers.

The findings of this study resonate with the findings of Oyeyinka, Bello & Ayinde (2014), that majority of farmers used the radio agricultural programme as their market information source, which is in congruence with the findings of Ango, Illo, Abdullahi, Maikasuwa & Amina (2013), that majority of the farmers obtained agricultural information through radio agricultural programmes. Findings of Haider (2014), that radio disseminates agricultural information that help farmers in Pakistan to adopt new information and apply new methods and practices in their farms, corroborates this study's findings.

Research Question 2: What are the possible agricultural information needs of cassava farmers in Southwest, Nigeria?

From the data analysis in Fig. 3 cassava farmers needed information on loan facility (33.7%), availability of agricultural equipment (26.3%), availability of seedlings (17.5%) and climate and planting condition (15.6%). By implication, the findings showed that the demand for information on loan facility was foremost among cassava farmers in South West, Nigeria, followed by availability of agricultural equipment and information on availability of seedlings; while information on climate and planting condition was least demanded by the cassava farmers. This is in agreement with Churi, Mlozi, Tumbo & Casmir (2012), whose findings showed that smallholder farmers require climate, market and agricultural inputs information to make strategic and tactical farm-level decisions for managing climate variability and extreme events. The findings further revealed that radio was found to be an important communication channel by the respondents in the study area, for communicating climate information. Conclusions reached on this research question has bearing with the uses and gratifications theory in the sense of the position of McQuail (2010) that media and content choice is generally rational and directed towards certain specific goals and satisfactions, and that audience members are conscious of the media-related needs which arise in personal (individual) and social (shared) circumstances and can voice these in terms of motivations. This is also in tandem with Odunlami (2012) who posited that uses and gratifications theory explains the reasons people use the media and the different types of satisfactions they obtained from such uses. Since cassava farmers' major agricultural information needs have to do majorly

with loan facility, modern tools of agriculture, storage facility and availability of inputs, radio stations should, from time to time, through newscasts, discussion programmes, jingles and other formats, inform them when opportunities avail themselves. One of the objectives of agricultural information is to ensure national food security. This explains why radio stations should constantly disseminate relevant agricultural information to cassava farmer's moreso when they listen to agricultural programmes often as revealed in table 2 of the data analysis. One of the formats radio stations use to disseminate agricultural information is news, and it should be delivered to farmers through different languages depending on the make-up of people living in each state of the country. For instance, in some states in Southwest, Nigeria, news is read in English, Yoruba and Egun languages. This affords every person residing in such states equal chance of listening to radio news, and at the same time understanding the information in the language each person understands.

The same thing should apply to agricultural discussion programmes on radio. Agricultural discussion programmes should be presented in different languages spoken in each state so that everybody can have equal chance of listening to the radio, and understanding topics for discussion on such agricultural programmes. Most important is that topics for discussion should be relevant and timely. This aligns with the findings of Bachhav (2012), which revealed that in agricultural environment, relevant and timely information helps farmers' community to take right decision to sustain growth of agricultural activities.

Conclusion and Recommendations

The study concluded that radio stations used News, Discussion, Interviews and Jingle formats to disseminate agricultural information to cassava farmers in Southwest, Nigeria. The study showed that cassava farmers' agricultural information needs were on loan facility, availability of agricultural equipment, availability of seedlings, climate and planting condition. Based on the findings of this study it is recommended that radio stations should disseminate agricultural information that satisfies information needs of cassava farmers. Radio stations should transmit agricultural programmes at appropriate times; not when farmers would probably be working on their farms.

References

Abdoulaye, T., Abas, A., Maziya-Dixon, B., Tarawali, G., Okechukwu, R., Rusike, J., Alene, A., Manyong, V. & Ayedun, B. (2014). Awareness and adoption of improved cassava varieties and processing technologies in Nigeria, *Journal of Development Agricultural Economics, 6* (2) 67-75

Adofu, I. Shaibu, S. O, & Yakubu, S. (2013). The economic impact of improved agricultural technology on cassava productivity in Kogi State of Nigeria, International *Journal of food and Agricultural Economics, 1* (1) 63-74

Ango. A. K., Illo, A. I., Abdullahi, A. N., Maikasuwa, M. A. & Amina, A. (2013). Role of farm radio agricultural programmes in disseminating agricultural development in Zaria, Kaduna State. *Asian Journal of Agricultural Extension, Economics & Sociology.*

Ani, A. O., Umunakwe, P. C., Ejiogu-Okereke, E. N., Nwakwasi, R. N. & Aja, A. O. (2015). Utilization of mass media among farmers in Ikwere Local Government Area of Rivers State, Nigeria, *Journal of Agriculture and Veterinary Science, 8* (7), 41-47.

Bachhav, N. B. (2012). Information needs of the rural farmers: A study from Maharashtra, India: A survey. *Library Philosophy and Practice (e-journal).*

Churi, A. J, Mlozi, M. R. S., Tumbo, S. D. & Casmir, R. (2012). Understanding farmers information communication strategies for managing climate risks in rural semi-arid areas, Tanzania, *International Journal of Information and Communication Technology Research,* 2 (11).

Enitan, O. (1988). *Comparative analysis of radio and television drama: Unpublished B.sc Thesis,* University of Ibadan, Ibadan, Nigeria.

FAO (2005). Knowledge and information for food security in Africa from traditional media to the Internet. Communication for development group, sustainable development department. Rome. FAO.

Federal Ministry of Agriculture and Rural Development (FMARD) (2016). The Agriculture Promotion Policy (2016-2020). *A Policy and Strategy Document.* Abuja, Nigeria.

Haider, I. (2014). The more farmers listen, the more they adopt: Role of local radio agricultural programmes in small scale farm extension., *International Journal of Multidisciplinary Academic Research, 2* (3).

Leroux, N., Wortman, M. S. & Mathias, E. D. (2001). Dominant factors impacting the development of business-to-business (B2b) E-commerce in agriculture. *Int. Food Agribus, Manager. Rev., 4* (2) 205-218

Manyozo, L. (2007). Rural radio and citizen participation: A development broadcasting model. In S. G. Anaeto & M. Solo-Anaeto, *Development communication: principles and practice.* Ibadan: Stirling-Horden Publishers Ltd.

McQuail, D. (2010). *McQuail's Mass communication theory,* (*6th edition*), London: Sage Publications

Njoku, J. I. K. (2016). Effectiveness of radio-agricultural farmer programme in technology transfer among rural farmers in Imo State, Nigeria. *Net J Agric, Sci, 4* (2), 22-2

Odini, S. (2005). Information seeking and communication behaviour of Kenya Railways Engineers, *University of Dar es Salaam Journal 7* (2).

Odunlami, A. T. (2012). *Media use as a predictor of political behaviour among undergraduates in South West Nigeria.* (Unpublished PhD thesis) Babcock University.

Ojebode, A. (2002). *Radio as a development communication medium: Types, formats, roles and limitations. In Soola, E. O. (Ed). Communicating for development purposes*, Ibadan: Kraft Books Limited.

Omenesa, Z. E. (1997). Rural agricultural radio in Nigeria: An overview of the national agricultural extension and research liaison service (naerls) farm broadcast, *Journal of Agricultural Extension.* 74-81.

Osikabor, B., Oladele, I. O. & Ogunlade, I. (2011). Worth assessment of information and their access points by small-scale cassava farmers in Nigeria, S. Afr. Tydskr. Landbouvoori./s.Afri.J. Agric. Ext., 69-68

Oyeyinka, R. A, Bello, R. O, & Ayinde, A. F. O. (2014). Farmers utilization of farm-radio programme for marketing of agricultural commodities in Oyo State, Nigeria. *European Journal of Business and Management.6* (35).58-67.

Soola, E. O. (Ed.), (2002). *Communicating for development purposes,* Ibadan: Kraft Books Limited.