

Accessibility of Cassava Farmers to Radio Agricultural Information in Nigeria

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Abstract

Radio information is central to boosting cassava production in Nigeria. Past studies reveal that radio stations disseminate agricultural information to farmers in Nigeria. Despite availability of information, there is still low productivity of cassava farmers resulting in their inability to meet local demand and export. However, this study investigated accessibility of cassava farmers to radio agricultural information in Southwest, Nigeria. The study adopted survey research design; while questionnaire was used as the instrument of data collection. The population of the study comprised cassava farmers in Ogun, Osun and Oyo States, Nigeria. Findings revealed that cassava farmers had access to radio and also to radio agricultural information. Findings showed that cassava farmers listened to radio agricultural programmes often. Findings further showed that radio stations disseminate agricultural information to cassava farmers on the average of twice a week ($\bar{x}=2.72$). Findings revealed that accessibility of cassava farmers to radio had a significant influence on their productivity. The study revealed that cassava farmers experienced challenges in accessing agricultural information due to the fact that agricultural information on radio is not relevant to their information needs. Also, agricultural information on radio is transmitted at odd hours when farmers who desire such information have gone to their farms. The study recommended that radio stations should transmit timely and relevant agricultural information to cassava farmers. Radio stations should increase transmission times of radio agricultural programmes

Keywords: *Cassava farmers, Radio agricultural information, Information dissemination, Productivity, Accessibility.*

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Background to the Study

Information has become one of the most important factors of production, and there is no doubt that this trend will continue (Olaniyi and Adewale, 2014). In this present information age, it is knowledge acquisition and application that will drive development and create opportunities for economic growth and poverty reduction. Having timely and relevant agricultural information especially on cassava production is germane to efficient and productive agricultural economy.

Cassava (*Manihot esculenta*) is a major food crop in Nigeria. It is also a major staple food in Nigeria. It has contributed to the socio-economic development and well being of Nigeria both as a subsistence crop for households and as a commodity for domestic/commercial /transactions (Kalu, 2006). Information and knowledge are key components of an improved agricultural sector (Lwoga & Stilwell, 2011). Farmers require information in order to progress in their agricultural activities. Thus, there is a direct relationship between availability of information and agricultural development (Babu, Glendenning, Asenso-Okyere and Govindarajan, 2011). To improve the economy, information needs of cassava farmers have to be met. Cassava farmers need to have access to quality information for their productivity potentials to be realized. Therefore, information is an important resource for all agricultural activities. It is only when farmers are informed, that they will be able to feed any nation. In this regard, radio is important in agricultural information dissemination to farmers. Against this background is the need to investigate the accessibility of cassava farmers in Southwest, Nigeria to radio agricultural information.

Objectives of the Study

The specific objectives of this study were :

1. Investigated the level of accessibility of cassava farmers in Southwest, Nigeria to radio
2. Identified types of radio agricultural programmes cassava farmers in Southwest, Nigeria listen to.

Research Questions

The following research questions were designed to guide the study:

1. What is the level of accessibility of cassava farmers in Southwest, Nigeria to radio?
2. What are the types of radio agricultural programmes cassava farmers in Southwest, Nigeria listen to?

Review of Related Literature

Agricultural Information Dissemination

In Nigeria and all over the world, information is seen as important to human existence. For anything and everything, information is required. Information is a valuable resource needed in any society thus acquiring and using it are critical and important activities. Information can reduce uncertainty, and enhance awareness of possible actions to take to solve any type of problem. It can be argued that lack of information can be a hindrance to development. Popoola (2007) also lends his academic voice to the importance of information by stating that information is a critical economic resource, and that when utilized, it can increase the

knowledge state of an individual in decision making. Issa (1997) believes that no individual can do without information. He argues further that information should be widely disseminated regardless of whether the person is an urban or rural dweller. From the standpoints of Popoola and Issa, it is clear that information is the oil that lubricates the wheel of progress of individuals, and corporate organisations as well.

Generally, agriculture is an information intensive industry. Agricultural activities in Nigeria are known to be sources of livelihood to many people, especially in the rural areas, and accessibility to knowledge and information services can hardly be denied as important in transforming the sector. Nenna (2016) asserted that agriculture depends largely upon continuous flow of information from local, regional and world market. Farmers require relevant information in order to plan for their activities. Williams and Trywell quoting Adomi et al, (2010) recognised that, farmers need to have access to quality agricultural information in order to improve their production. Therefore, information is very important resource for all agricultural activities. Agricultural information provision and dissemination is a must for every responsible government because it is only when farmers are informed, that they will be able to produce enough to feed the nation, Nigeria.

Farmers, no doubt, constitute a particular group of people whose information need is very specific. In agricultural environment, relevant and timely information helps farmers' community to take right decision to sustain growth of agricultural activities. Timely access to radio market information helps farmers make correct decisions about what crops to plant and where to sell their products and also buy inputs. Without doubt, cassava farmers would feel discouraged to do large scale cassava farming if they discover that marketing their products could become problematic. Njoku (2016) avers that the major missing link between research and sustainable food production is lack of effective information system. Marocchino cited in Oyeyinka, Bello and Ayinde (2014) argues that among the factors that tend to limit the contribution of the agriculture sector to economic growth and poverty reduction is poor network of agricultural information services. In addition, weak linkage among actors in the agricultural sector tends to be one of the limiting factors to the accessibility and usage of agricultural knowledge and information among farmers in most rural areas in Nigeria. Unarguably, farmers need to be informed appropriately and timely too, about happenings in the agricultural world. No doubt, Nigerian farmers would enhance their agricultural production if they could access the type of agricultural information they need on radio. Among other things, Nigerian farmers need information, especially on climate. This is supported by the submission of Churi, Mlozi, Tumbo and Casmir (2012) that crop production risk caused by climate variability cannot be managed in the absence of climate information. In their study on 'Managing Climate Risks in Rural Semi-Arid areas in Tanzania, Churi *et al.*, found that climate information was important factor for making farmers decisions. According to Oyesola and Obabire (2011), farmers need regular information and enlightenment on various organic methods of weed, pest and disease control. Several challenges facing farmers in accessing agricultural information have been identified. For instance, Aina (2004) revealed that the factors affecting the flow of agricultural information to farmers in Africa include the limited number of radios and television sets, the low literacy level of farmers, and the inadequate number of personnel trained in agricultural information.

Theoretical Framework

The study anchored 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 information on their agricultural activities. And because cassava farmers are not just passive receivers of the messages, they are able to selectively choose, attend to, perceive and retain the messages on the basis of their needs. Since cassava farmers use the radio to get their information needs, then the uses and gratifications theory becomes relevant to this study.

Empirical Review

Scholars and researchers have conducted various investigations to assess radio and agricultural information dissemination among cassava farmers in Nigeria. Such researches have attempted to x-ray relevant concepts and proffered possible solutions to poor performance of the agricultural sector. Murumba and Mogambi (2017) carried out a study on 'Radio for Farming? An analysis of regional radio programs and agricultural productivity in Kenya. The study sought to find out whether the people of Kimilili sub-county use West FM as a source of information and to assess the impact of West FM's farming programs on agricultural productivity in Kimilili sub-county. The study found that due to access to information from West FM station, farmers have managed to improve their yields over time. It was discovered that farmers learnt a lot of new farming ideas that enabled them venture into different farming methods. These methods include: mixed farming, crop rotation, livestock keeping, and fertilizers to use and also how to market and distribute their products.

Similarly, Oyeyinka, Bello and Ayinde (2014) in their study published in European Journal of Business and Management with the title 'Farmers Utilization of Farm-Radio Programmes for Marketing of Agricultural commodities examines the use of radio for marketing of agricultural products in Oyo State, Nigeria. They discovered that majority of the farmers (84.0%) used the radio agricultural programme as their agricultural market information source. The study concluded that apart from radio, the most widely use source of market information by farmers are extension agents and verbal contact with fellow farmers.

Methodology

The study adopted survey research design. The population of the study comprised cassava farmers selected from Ogun, Osun and Oyo states in South West, Nigeria totalling 6,353 from which a sample of 593 cassava farmers who participated in the study were determined, using the Taro Yamane formula. Multi-stage sampling technique was used. . Firstly, 3 states (50%) out of 6 in South West, Nigeria were selected using simple random technique. This led to the selection of Ogun, Osun and Oyo States. Fifty percent 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%). The study adopted structured questionnaire 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: How accessible is radio to cassava farmers in South West, Nigeria?

Fig. 1: Cassava farmers with Access to Radio

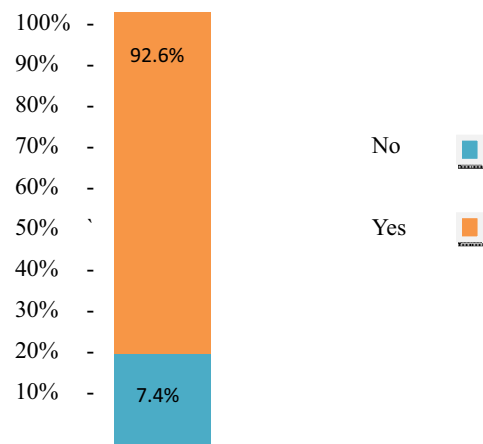


Fig. 1: Indicates that majority of the participants had access to radio while only 7.4 percent did not have access to radio.

Fig. 2: Radio Stations Cassava Farmers Listened to

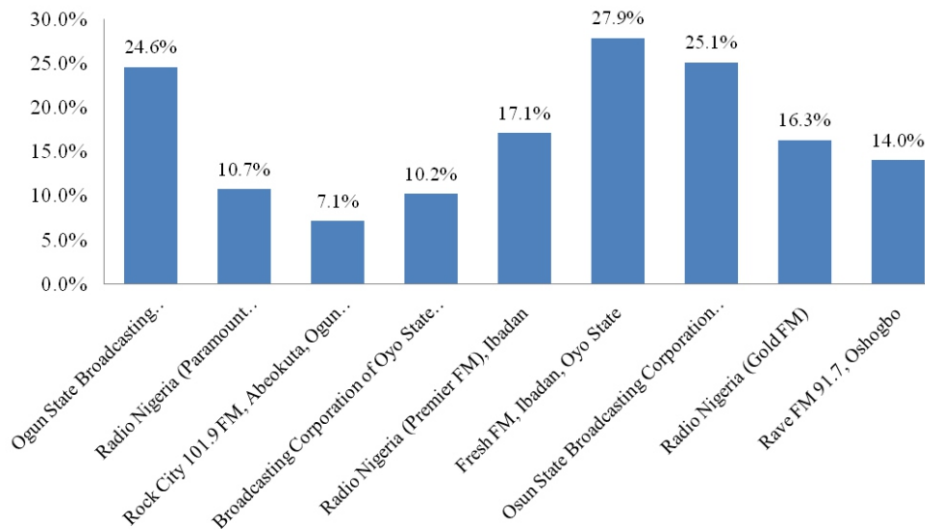


Fig. 2 illustrates that majority of the participants listened to Fresh FM, Ibadan Oyo State (27.9%), followed by those who listened to Osun State Broadcasting Corporation (OSBC) (25.1%); while fewer respondents listened to Broadcasting Corporation of Oyo State (BCOS), Ibadan (10.2%) and Rock City 101.9 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.

Figure 3: Radio Programmes Cassava Farmers Listened to

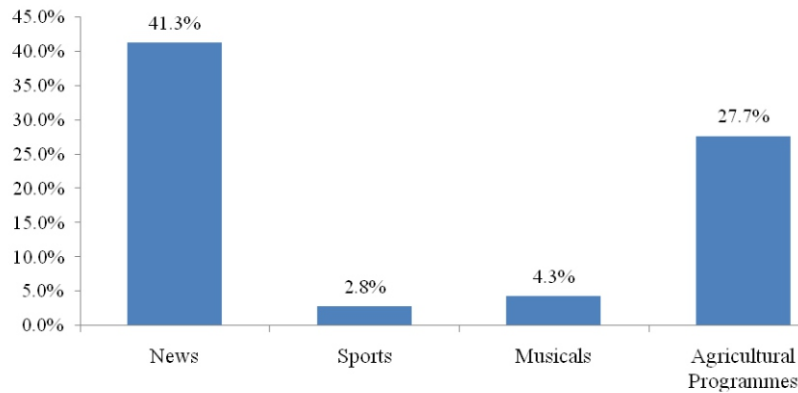


Fig. 3 depicts that cassava farmers listened more to news (41.3%) than agricultural programmes (27.7%). On the other hand, cassava farmers listened sparingly to musical and sports programmes on radio. This suggests that news broadcast on radio is listened to more than other programmes including agricultural programmes.

Fig. 4: Means by which Cassava Farmers Accessed Radio

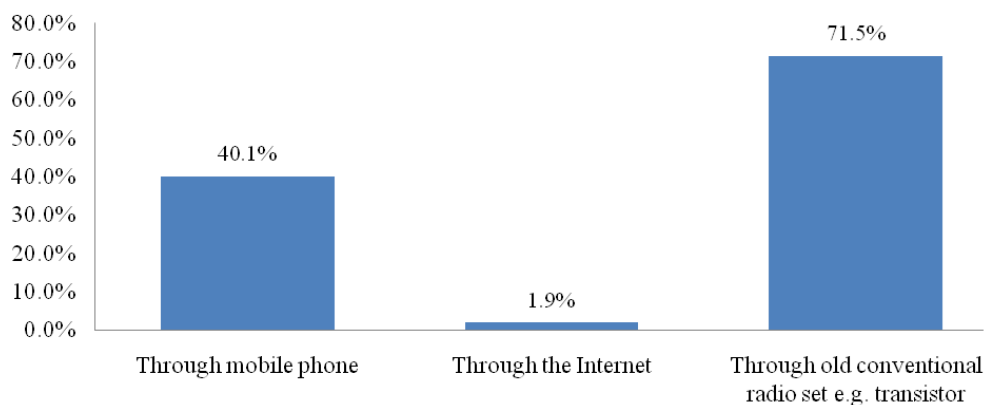


Fig. 4. shows that majority (71.5%) of cassava farmers accessed radio through the conventional transistor radio platform radio. In addition, 40.1 percent of cassava farmers accessed radio through mobile phones; while 1.9 percent accessed it through the Internet (1.9%). This suggests that the old transistor radio is popularly used by cassava farmers in South West, Nigeria.

Research Question 2: What are the types of radio agricultural programmes cassava farmers listen to?

Fig. 5: Cassava Farmers' Awareness of Agricultural Programmes on Radio

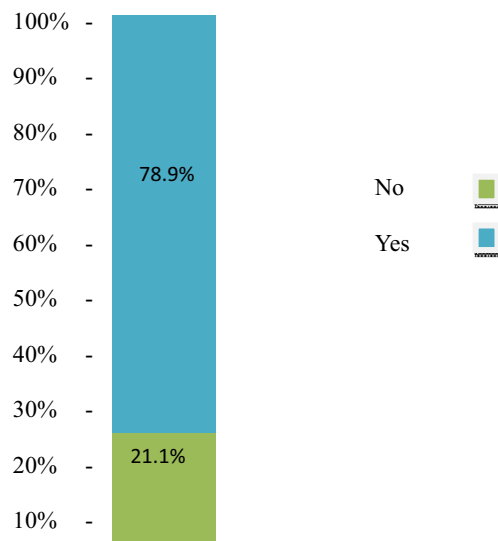


Fig. 5 indicates that majority of cassava farmers' were aware of agricultural programmes on radio.

Fig. 6: Types of Agricultural Programmes Cassava Farmers Listen to on Radio

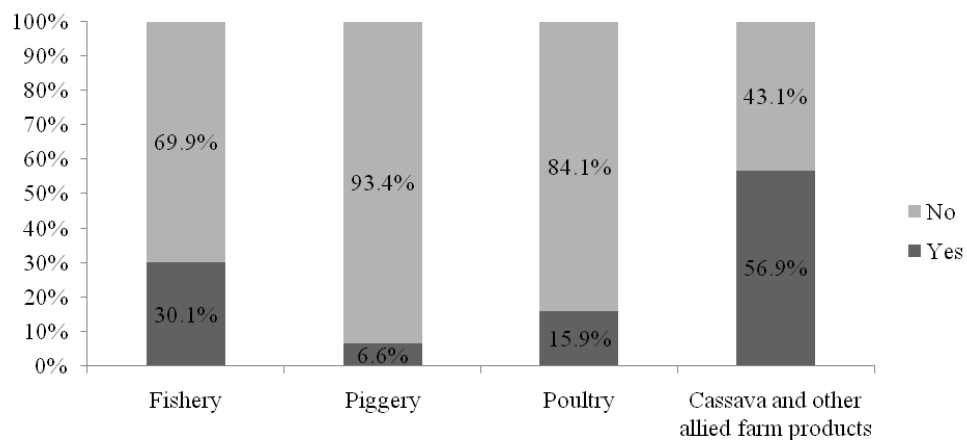


Fig. 6 shows that that majority of cassava farmers listened to cassava and other allied farm products radio programmes (56.9%), followed by fishery radio programmes (30.1%), poultry (15.9%) and piggery (6.6%).

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.

Fig. 7: Challenges of Accessing Radio Agricultural Information by Cassava Farmers

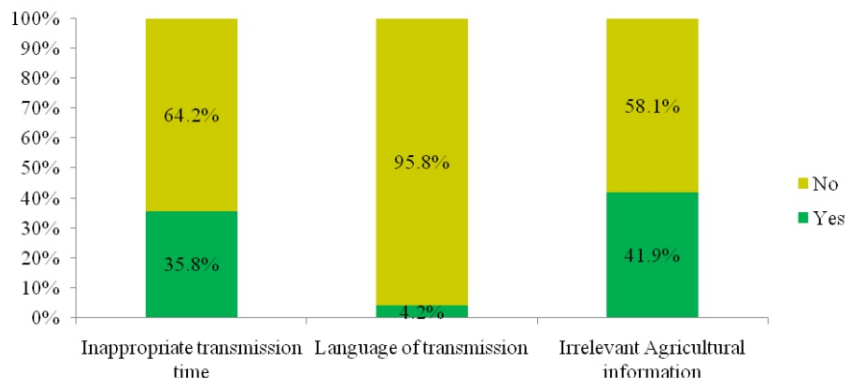


Fig. 7 shows that the most prominent challenge working against the acquisition of agricultural information by cassava farmers in South West, Nigeria was dissemination of irrelevant agricultural information (41.9%); this is followed by inappropriate transmission time (35.8%); while language of transmission constituted the least challenge.

Discussion of Findings

Research Question 1: What is the level of accessibility of cassava farmers in South West, Nigeria to radio?

As revealed by the findings of this study, majority of cassava farmers had access to radio while only 7.4 per cent of the farmers did not have access to radio. Majority (71.5%) of cassava farmers accessed radio through the conventional transistor radio platform as indicated in Fig. 4.

Findings also revealed that cassava farmers listened often to radio for agricultural information. These findings agree with the findings of Haider (2014) that 94% of the farmers listen to radio in Pakistan. The findings also agree with the findings of Familusi & Owoeye (2014) that radio is the most important instrument in information dissemination because it reaches larger percentage of the people (farmers). In their study conducted to assess use of Information and Communication Technologies among farmers in Benue State, Nigeria, Mbah, Agada and Ezeano (2016) reported that 98.8% of the respondents (farmers) were using radio. Going by the findings of Mbah, Agada and Ezeano in Benue state and the percentage of farmers using radio in the study states, it can be said that almost all the farmers had access to radio. Findings of this study also agree with those of other authors (Ajayi, 2003; Anigwe, 1990) who earlier reported radio as leading source of agricultural information to women farmers in their study areas. In an earlier study conducted in South West, Nigeria, Patel and Ekpere (1978) reported that 83 percent of the farmers listened to radio farm-programmes. Findings of Patel and Ekpere agree with the findings of Mbah, Agada and Ezeano who reported that 98.8% of respondents (farmers) in the study area were using radio. Findings of this study also confirms findings of Oyeyinka, Bello and Ayinde (2014) who also reported that majority of farmers, 84% in Oyo State, had access to radio, and also used the radio agricultural

programme as their agricultural market information source. Findings of this study also resonate with the findings of Oyetoro, Adewumi & Sotola (2017) whose findings revealed that radio was the most accessible mass media channel by cassava processors in Saki agricultural Zone of Oyo State, Nigeria. Nenna (2016) also reported that mobile phones, radio and television ranked the most sources of awareness and utilized ICTs in receiving agricultural information related to cassava production in Anambra State, Nigeria. These findings by previous researchers point to the fact that cassava farmers generally had access to radio. As earlier stated in this discussion, cassava farmers having access to radio might not be enough, using agricultural information disseminated to them for productivity is much more important. Findings of this study therefore confirm findings of previous authors that cassava farmers in South West, Nigeria had access to radio. The findings of this study is also in consonance with the findings of Tijani (2017) that radio is the most readily available ICT device (99.2%) to farmers in Imo State, Nigeria.

Research Question 2: What are the types of radio agricultural programmes cassava farmers listen to?

As indicated in Fig.6, majority of cassava farmers in Southwest, Nigeria were aware of agricultural programmes on radio. Result of the analysis showed that majority of the cassava farmers listened to cassava and other allied farm products radio programmes (56.9%, followed by fishery radio programmes (30.1%), poultry (15.9%) and piggery (6.6%). Findings of this study corroborate the findings of Omoregbee and Banmeke (2007) that there was high awareness among respondents about agronomic practices and low awareness about agro-chemical associated with cassava production in Delta state. In a sense, the findings showed that cassava farmers listened to radio programmes. When cassava farmers are aware of radio agricultural programmes and make an effort to listen to such programme, there is tendency for such cassava farmers to use the agricultural information to increase productivity especially where such information is relevant to their agricultural information needs, For instance, findings from the study conducted by kembero (2014) established that farmers in Bomachoge constituency adopted the information disseminated through radio which was found to be highly relevant to their needs. This also corroborates Haider's (2014) study which revealed that farmers in Pakistan listen to radio agricultural programmes which help them to adopt innovations and apply new methods and practices in their farms. Findings of this study showed that part of the reasons cassava farmers in Southwest, Nigeria did not use radio agricultural information disseminated to them is because such information do not satisfy their agricultural information needs. When agricultural information needs of cassava farmers are not satisfied there is tendency they would listen to other agricultural programmes that may not be beneficial to them. This perhaps explains why cassava farmers listen to fishery, poultry and piggery radio programmes as revealed by the findings of this study even though they do not satisfy their agricultural information needs. Radio stations should remember that one of the reasons for agricultural information is to ensure national food security. Therefore, radio stations should try as much as possible to make sure that agricultural information, especially through discussion programmes that they disseminate satisfy agricultural information needs of cassava farmers.

Conclusion and Recommendation

The study concluded that cassava farmers in Southwest, Nigeria had access to radio and, also to radio agricultural information. Findings also revealed that cassava farmers were aware of agricultural programmes on radio. The study showed that cassava farmers listened to cassava and other allied farm products radio programmes, followed by fishery, poultry and piggery radio programmes. The study revealed that cassava farmers experienced some challenges in accessing radio agricultural information; they include: dissemination of irrelevant agricultural information; inappropriate transmission time, and language of transmission.

It is, therefore, recommended that Government should ensure that cassava farmers have access to relevant radio agricultural information at all times. Similarly, radio stations should not deny cassava farmers' access to agricultural information; they should constantly identify agricultural information needs of cassava farmers and try as much as possible to satisfy such information needs. Also, radio stations should disseminate timely and relevant agricultural information to cassava farmers. Further, radio stations should disseminate agricultural information to cassava farmers in the language they understand.

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