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## CULTURE, MEDIA & FILM | RESEARCH ARTICLE

# Audience listenership of FM radio: A case study of rural development in Northern Ghana

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**Abstract:** The quest for effective strategies for rural development continues to be a challenge for policymakers in sub-Saharan Africa and their development partners. Communication development strategies executed using FM stations have emerged as a promising tool as a result of the medium being the most popular source of information among rural dwellers in the region. Thus, this research explores the efficacy of FM radio in rural development by examining the listening patterns of residents and the benefits of such listenership to the lives of inhabitants of the Tamale metropolitan area. This is achieved via a quantitative analysis of surveys of about 400 residents of the Tamale metropolis. The study rejects the perception that FM radio programs in Ghana are mostly entertainment driven and are purveyors of light news. By putting searchlight on the motivations of radio listeners, the study finds that FM radio is the most reliable and trusted source of development information because of the ease, convenience and low cost of listening for listeners, and because programming is mostly in local languages. The study establishes that FM radio is the main source of information on agriculture, education and health in rural communities thereby contributing to rural development. Listeners' participations in radio phone-in programs were highly rated for fostering audience motivation and agency. However, some challenges emerged. Listenership of FM stations was disproportionately male; there were complaints that radio programs were too "urban"; programming lacked innovation; and the timing of programs was poor. Based on these findings, the study recommends that FM radio stations should employ media

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professionals to conduct effective audience analysis to gain a grounded understanding of audience radio use if they are to develop the right programming timing to reach a greater audience of rural residents.

**Subjects:** African Studies; Mass Communication; Political Communication; Development Communication; Environmental Communication; Group Communication; Health Communication; Development Studies; Politics & Development; Sustainable Development

**Keywords:** rural development; development communication; northern Ghana; uses and gratifications; radio listeners

### 1. Introduction

Several media scholars and anthropologists have for long identified radio as a vital companion among rural African communities. The low cost of a radio receiver, its portability and use of simple batteries have combined to make radio the most essential information and entertainment medium among rural communities. Moreover, to listen to radio is not dependent on literacy and, for this reason, radio can be a medium for everyone with access to a receiver. Because the mass media are seen as modern paraphernalia imported into Africa from Europe, early academic inquiry into their use followed research trends that were prevalent in Europe. Such research inquired into what media do to people and were therefore largely focusing on effects studies. Our study on the use of radio among rural communities in northern Ghana moves away from effect or media centered inquiry and focusses instead on the people themselves, the audiences of radio.

AS people are the ultimate target of any development agenda or goal, the study makes the following contributions:

- (i) It adds to the literature on how audience use of radio impact development in rural communities
- (ii) It provides useful insights into desirable radio programming for FM radio in rural areas
- (iii) It is useful to organizations working in the area of development in understanding alternative ways radio can be incorporated in achieving development objectives.

The study will seek answers to the following research questions:

Q1 What are the programming patterns of FM radio stations in Ghana?

Q2 In what ways are rural communities using FM radio in Ghana?

Q3 What benefits do rural communities derive from FM radio listenership?

### 2. Literature review: Development of rural radio in Ghana

Ghana's rural broadcasting system was established in 1962. The main policy guidelines for the establishment of this unit were targeted at rural communities. (Ansu-Kyeremeh, 1997) observes that development broadcasting has been part of the policies of the Ghana Broadcasting Corporation (GBC) since the introduction of broadcasting in Ghana in 1935. The air time for rural education and development was, however, needed.

The rural broadcasting policy of the GBC was to allow rural people access to information through the GBC national network. This was meant to give the rural communities information on the best farming practices in the country. Programs on agricultural issues were a regular feature on the national network under the policy in 1957 (Abbey-Mensah, 2001). The programs were designed to educate, inform and entertain rural communities and were produced in local languages. Stressing

rural education, media and communication experts advocated for local content in radio messages to rural residents (Ghartey-Tagoe, 1994).

An initial attempt was the Upper East Regional Agriculture Development Program, an organization mandated to disseminate agricultural information and messages that are geared toward development. This radio station was taken over by the state (GBC) after the project ended (Bonnah-Koomson, 1994). Two community radio stations sponsored by the United Nations Educational, Scientific and Cultural Organization (UNESCO) with the support of the School of Communication Studies at the University of Ghana were also established at Apam and Swedru in 1983. These were used to interact with the two communities on issues of development and agriculture. The main focus in the Swedru District was to broadcast non-formal education and adult literacy programs. This project was funded by the Non-Formal Education Division of the Ghana Education Service. These radio stations were later handed over to the respective district assemblies to issue broadcasts on rural development (Obeng-Quaidoo, 1988).

Democracy and party politics created a new trend in media pluralism. The need to re-focus on functions and the status of broadcasting policies of radio stations in Ghana demanded more attention. Localizing national radio and embracing private ownership of radio stations is an advantage in the Ghanaian media. Both the state and private radio stations should integrate national community development policies to serve as a platform to meet the information needs of the rural population (Ansah, 1994). The development of media decentralization policies is a clear manifestation of reducing the state monopoly over information delivery and plays a valuable role in promoting the linguistic, cultural, and religious heritage of people in Ghana (Chapman et al., 2003).

According to a Ghana Broadcasting Corporation (1995) report, the Minister of Information called for a redefinition of the objectives of broadcasting in Ghana and for the drawing up of a strategic plan for the next decade. He added that the government would provide funding for the GBC to facilitate the transmission of development messages throughout the country. Under this policy, new radio stations were opened in all regional capitals of Ghana, bringing the number of public service radio stations to 10. In addition, a larger portion of air time was allocated to agriculture and other development programs. This was because a larger proportion of the rural population relied on agriculture for economic sustenance (Bonnah-Koomson, 1994).

After some years of neglect of the media, Ghana realized that a sound policy was needed to enable radio to play its role in the socio-economic development of the country. In 1999, the National Media Commission (NMC) developed a national media policy to provide guidelines for the development and operation of all media, including newspapers, cinema and radio. The main objective of the policy was to establish standards for measuring the performance of the media (Hastings, 2005). The policy laid out principles to guide the development of the media in the country and for program content.

The policy aimed at making the media prioritize the wellbeing of all Ghanaians, especially the disadvantaged. It considered all media services as public interest tasks and stressed that the public good should be the overriding objective in the operation of the mass media. It also promoted a free, independent, dynamic and public-spirited media that would fully and creatively serve the community at national and global levels (Ministry of Communication, 2004).

In 2006, the policy guidelines of the NMC were integrated with the aims of the Ghana Poverty Reduction Strategy II (GPRSII), and the Minister of Finance recommended an increase in funding for the Commission. He stated that the objective was to enable them to monitor to what extent “development content” reflects in media output and to monitor negative reportage. The overall strategy was to enable the media to contribute to the objectives of the GPRS II (Government of Ghana, 2006).

In 2007, the private media working with the Ghana Journalists' Association signed a communiqué requiring all private radio stations to commit to a minimum quota of public service broadcasting. The communiqué also called for the GBC to be transformed into a true public broadcasting service (Albert-James, 2012). In the same year, the National Communication Authority was charged with the regulation of communications and the allocation of broadcast frequencies. The NCA issued a directive for all broadcasters to switch from analog to digital transmission to better optimize the use of the national frequency distributions. The process of migrating to digital broadcasting became a formal policy in 2010. At that time, the Minister of Communications argued that the move was necessary because there was a need for the adoption of the new communication technologies and to free up the electronic spectrum for additional services (Government of Ghana, 2010). The adoption of digital broadcasting would also answer the call of the International Telecommunications Union to its member countries to implement digital broadcasting by 2015 (Ruda, 2011).

Over the last three decades, Ghana has developed a pluralistic and vibrant broadcasting landscape. This has come about through a liberal regulatory framework that has opened the doors to new actors and given private commercial broadcasters the opportunity to take root. However, community broadcasting, which plays a vital role in reaching out to rural communities, including the poor and marginalized groups, is much less developed. This policy gave Ghana's media the flexibility to roll out different broadcasting approaches and move beyond the era of a monopoly of state broadcasting.

In conclusion, there is a need for the reduction of state control of the media in Ghana. As Karikari (1994) observes, Ghana's media, including radio, are protected by the 1992 constitutional guarantee of free speech and freedom of the media. The establishment of community radio stations in the country is vital to development because of their proximity to the rural communities in the regions, in general, and to the districts, in particular. FM radio stations allow greater participation and sharing of ideas, which culminates in behavioral changes by the rural people.

### 3. Methodology

This study investigates the role of FM radio in rural development in parts of northern Ghana. There, the Tamale metropolis is comprised of 60% rural dwellers. The study employs a quantitative methodology in the form of surveys as a tool for data collection. Out of 400 questionnaires that were sent to respondents, 392 were retrieved and analyzed. The surveys were administered in the following rural areas associated with the Tamale metropolis: Jena, Yong, Dungu and Parishe, which have a combined population of about 22,000. The surveys were administered over a three-month period starting from June to August 2015.

The study employs a survey methodology due to its strength and reliability for this research. Reinard (2001) notes that surveys allow researchers to obtain a broad outlook of an event, employing scientific means to explore a wide spectrum. In this study, the data gathered in the communities using the survey design revealed the features of the respondents in relation to their radio listening habits, media exposure and behavior change. Schroler et al. (2003) contends that using the survey method in media research allows for the useful analysis of variables. Numerous studies in Africa and Asia, according to Singletary (1994a), use surveys for most of their investigations and have drawn successful conclusions. These researchers employed the necessary steps of the survey method to overcome the challenges associated with the approach. Thus, the survey method was justified as best for this study. The participants were purposively selected because of their occupations as farmers, the major occupation of most rural dwellers in northern Ghana. According to Acharya et al. (2013) purposively sampling is the most commonly used method of sampling, less expensive and does not require a list of all the population elements.

This study was carried out in rural areas surrounding the Tamale metropolis in the northern region of Ghana. The research covers all three sub-metropolitan administrative areas—Tamale South,

Tamale Central and Tamale North—with emphasis on the following nearby rural areas: Jena, Yong, Dungu and Parishe. The Tamale metropolis was selected for this study for several reasons. First, all FM radio stations are located in the metropolis, from which they reach all rural districts of the northern region. Second, the major activity in the area is agriculture. About 60%–70% of the population is engaged in farming for their economic sustenance (Ghana Statistical Service, 2010). Finally, the three sub-metro areas are relatively poor, most are deprived in terms of infrastructure and their residents are predominantly illiterate (UNDP, 2015). Moreover, about 60% of the population in the metropolis lives in rural communities, therefore, FM radio is their main source of information (Ghana Statistical Service, 2010). The twin factor of low literacy and absence of alternative recreational activities found in urban centers make FM radio an ideal source of information.

#### 4. Conceptual and theoretical framework

For the purpose of providing context for understanding the role of FM radio in rural development among Ghanaian communities the study explores the Uses and Gratifications (U&G) theory espoused in the early works of Herta Herzog, Robert Merton, Paul Lazarsfeld and Frank Stanton. Among these Lazarsfeld & Stanton (1944) were especially credited with their studies in the 1940s of how audiences used media in organizing their lives and experiences especially the importance of early-morning radio programs to farmers. Their focus was especially on the reactions of the audience to such programs as they were listening to them. In her study on the motivations and gratifications of radio soap operas, Herta Herzog (1944) inquired into why women became ardent followers of the programs on the experiences of people in relationships. Her aim was to understand what the listeners gained or obtained as well as the psychological evaluations of their claims. In the end, Herzog (1944) found that the listeners found the programs as means of emotional escape from routine life and also source of advice about their own life issues. It was Blumler & Katz (1947) who re-labelled Herzog's "motivation and gratification" to "Uses and Gratifications" in his attempt to empirically test some of the earlier claims about popular culture in the 1950s regarding people's use of the media and what gratifications they derived from media programs.

Such an approach assumes that even the most potent of mass media content cannot ordinarily influence an individual who has no "use" for it in the social and psychological context in which he lives. The "uses" approach assumes that people's values, their interests, their associations, their social roles, are pre-potent and that people selectively fashion what they see and hear to these interests (Katz & Lazarsfeld, 1955, as cited in McQuail, 1984)

In his own proposal about the main assumptions in the Uses and Gratifications approach as expanded by Blumler and Gurevitch (1974), Katz observed the following that rather than being passive recipients and manipulated consumers of media messages, the audiences are active, and their media use is actually goal-directed. It is also added that because the audiences have expectations about media content or program, such expectations shape their selections of media programs. For instance, if a rural community is in need of guidance on fertilizer use or about best seedlings they will link the satisfaction of such need to particular radio program. Among the competing choices for need satisfaction open to the audiences are several others such as reading, face-to-face conversations, physical exercises, etc. But finally, audiences are very much aware of their needs, media choices and gratifications obtained so that they can respond to inquiry about what prompted their media interactions and consumptions.

Clearly therefore, what is widely known as Uses and Gratifications theory today arose from those 1940s explanations of audience interactions with media. Since then, the Uses and Gratifications approach has undergone a revival in the 1970s and 1980s. Shifting attention away from concerns with effects of media content, to the users of media, the audiences, as important focus in the mass communication process, the uses and gratifications are built around two key assumptions.

First, it suggests that in their interaction with the media, audiences are active in choice and consumption of content. Second, the approach assumes that media audiences are cognizant of the motivation behind their choice of media or media programs. In addition to these two, what arises is that people are aware of their media uses and interests and that the medium that provides or guarantees these will be used more than other types. As we would see in the case of the rural communities of northern Ghana, their discovery that the FM radio more than any other medium is both accessible and providing the information they desired, made them to keep faith with it derive the gratification for their informational needs on farming.

Yet, there is not only a single need proposed by Uses and Gratifications approach. People could be motivated to consume media for any of several needs that include cognitive needs where audiences may use media in seeking information and knowledge, affective needs where they use media to satisfy emotional needs such as comic relief when they watch comedy shows, relaxation when they listen to music, etc. Other needs are social integrative need when audiences use media to interact with friends or family, tension release needs when the audiences use the media to achieve catharsis or diversion from routine activity, etc. (see, Katz et al., 1974; Ruggiero, 2000).

From what emerges therefore, the strengths of the Uses and Gratifications approach include its granting agency to users of mass communication who were hitherto taken as passive consumers of messages, its respect for the intellect of media users as well as the insights it gives on people's experience with media content and the focus on media use as part of people's daily social interaction.

Still, the approach is not without its critics, both Elliot (1974) and Ang (1985) have pointed to its focus on individuals as the unit of analysis and, that by focusing on their psychological make-up Uses and Gratifications has lost sight of the social dimension of audience interaction with the media. They further drew attention to the fact that media consumption as in television and radio can be a social activity taking place in company of others such as friends or family members and even interpretation of content is done in conversation with such group members. In his own critique of Uses and Gratifications, Glover (1985) opines that the approach confers media audiences with a clear purpose when they set out to watch television or listen to radio. Media hegemony advocates have also argued that Uses and Gratifications has over privileged people's choice of media as well capacity for interpretation of messages (see, White, 1994). They also point to the neglect of the increasing power of both corporate media and media producers.

From our study of the rural community in northern Ghana we would confirm that radio listenership is indeed a social activity taking place in the context of African culture of community where kinship is in the centre of so many activities including cultural consumption. Musa (2018) has observed a common practice in several West African countries where BBC radio listenership has become a source of identity as listener clubs are formed and bound by their collective attachment to the BBC Africa service. Contrary to Glover's (1985) critique radio audiences in rural communities in Africa have a clear purpose and desire when they gather to listen and often make written representation to BBC in Bush House about timing of some programs or inclusion or exclusion of programs.

## 5. Findings and discussion

### 5.1. The efficacy of FM radio in rural development

This section explores the use of radio among the respondents by looking at how informative radio programs are to them. The timing of radio programs and the involvement of women in radio programs were also considered. This analysis also investigates whether FM radio caters only to urban areas. Further, the need for more innovations and the popularity of phone-in programs were also assessed. Finally, the influence of FM radio stations on the people's participation in the development of their communities in the Tamale metropolis is also studied.

In assessing the quality and impact of FM radio programs, the study employed a 5-point Likert scale to measure the following: convenience and timing of programs; the popularity of phone-in programs in terms of interactivity; popularity among women; entertainment programming; degree of urban orientation; care for the local audience; broadcasting of more educational programs; and keeping listeners active. The study also sought to learn whether listening to radio programs was habitual.

### **5.2. Use of FM radio programs as sources of information**

The results reveal that, among the respondents, listening to radio was not done only for entertainment but also to obtain valuable information relevant to their welfare. The results indicate that 69.50% of respondents viewed themselves as habitual listeners to FM radio and regard FM radio as a major source of information on a variety of issues of concern. Both UNICEF (1993) and Wallack (1989) conclude that radio programs highlight practical social ideas and activities that raise people's awareness of development.

### **5.3. Popularity of FM radio among women**

In terms of whether FM radio is popular among women, 7.5% of the respondents strongly disagreed, 39.8% respondents disagreed, 19.6% were undecided, 25.1% agreed and 8% of respondents strongly agreed. Hence, a majority of the respondents disagreed that FM radio is popular among women. If radio is to be used as a tool for rural development, there is a need to expand the audience of women since they are major players when it comes to this issue. In addition, women stand to gain valuable development information from increased listenership of FM radio stations.

### **5.4. Audiences use FM programs mostly for entertainment**

Further, as shown in Figure 1, opinions differed as to whether or not FM radio is primarily used for entertainment: 9.1% strongly disagreed, 36.8% disagreed, 13.1% were undecided, 24.3% agreed and 16.8% strongly agreed. Thus, the majority of the respondents disagreed with the assertion that FM programs are mostly for entertainment.

## **6. FM radio programs are urban oriented**

The study sought to learn whether FM radio programs are urban oriented and do not cater to rural communities. The results show that 3.1% of the respondents strongly disagreed, 13.7% disagreed, 18.3% were undecided, 46.8% agreed and 18.1% strongly agreed. Hence, a majority of the respondents agreed that FM programs are urban oriented. This calls for proper realigning of FM programs to suit the needs of rural dwellers who are more vulnerable than are urban dwellers.

### **6.1. FM Radio Programs Need Innovations**

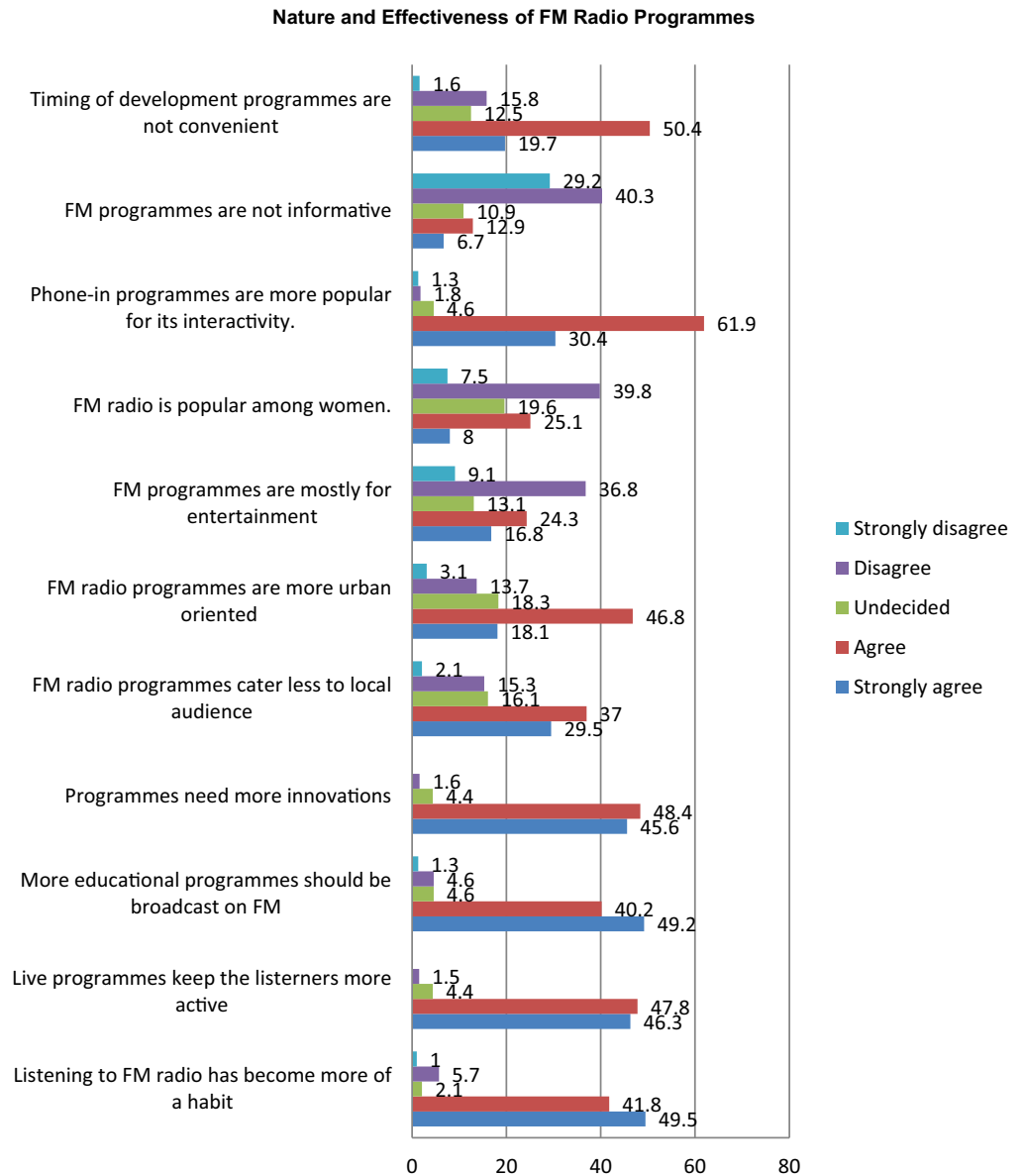
The data show that FM radio programs need more innovations; specifically, 1.6% of the respondents strongly disagreed, 4.4% disagreed, 48.4% agreed and 45.6% strongly agreed. There were, however, no responses for the category of undecided. Nearly half of the respondents (45.6%) agreed that FM programs need more innovations. This is an indication that current programs are not dynamic and are less responsive to how issues are changing in the sampled communities.

### **6.2. More educational programs**

With regard to whether more educational programs should be broadcast on FM radio, the results show that 1.3% of the respondents strongly disagreed, 4.6% disagreed, 4.6% were undecided, 40.2% agreed and 49.2% strongly agreed. This shows that a significant number of respondents strongly agreed that more educational programs should be broadcast on FM. Put differently, 93.2% of the respondents wanted more educational programs to be broadcast. This is not surprising since, from Figure 1 the programs listened to by a majority of the respondents were educational programs. Furthermore, 36.8% disagreed and 9.1% strongly disagreed that FM radio programs are mostly accessed for entertainment.

**Figure 1. Nature and Effectiveness of FM Radio Programs.**

Source: Authors' field survey, 2015.



**6.3. Audience participation and impact of phone-in programs**

The study also investigated the extent of audience participation in phone-in programs and the extent of interactivity in the programs. The data indicate that 1.3% of the respondents strongly agreed, 1.80% disagreed, 4.6% were undecided, 61.9% disagreed and 30.4% strongly disagreed. Thus, a large majority (92.3%) of respondents agreed that phone-in programs are more popular for their interactivity. This shows that individuals feel that they are part of the discussions on radio when they are given the opportunity to contribute by calling in. Aside from this, in broadcasting programs live, 47.8% of the respondents agreed and 46.3% strongly agreed (94.1% total) that live programs keep listeners more active. However, 48.4% agreed and 45.6% strongly agreed that FM radio programs still need more innovation, meaning that 94% of the respondents see little innovation in the content of radio in the metropolis.

**6.4. Convenient timing of FM radio programs**

On the assessment of the convenient timing of FM radio programs to audiences, the results indicate that 1.6% strongly disagreed, 15.8% disagreed and 12.5% were undecided that programs are offered at convenient times. Meanwhile, 50.4% agreed and 19.7% strongly agreed with their

convenience. Thus, 71.1% of the respondents viewed the timing of FM radio programs as inconvenient. This is very worrying and sends a strong signal to stakeholders in charge of radio stations as to what could be done to attract audiences to their programs.

### 6.5. Audience listenership behavior

With regard to the habitual listening of FM radio programs by respondents, 1% strongly disagreed, 5.7% disagreed, 2.1% were undecided, 41.8% agreed and 49.5% strongly agreed that listening is a habit. Thus, approximately 50% of the respondents strongly agreed that listening to FM radio has become a habit, and nearly all (91.3%) were active and habitual FM radio listeners.

### 6.6. Media exposure

This section focuses on sources of information as well as the most preferred medium from the sampled communities. These preferences of media channels include Instagram, Tango, Viber, Twitter, WhatsApp, Facebook, newspapers, television and radio. The study found that radio was the most preferred medium for rural development among the respondents.

As shown in Table 1, the study inquired which medium is most preferred by the audience. The results show that 32.4% of the respondents indicated radio as the most preferred medium, 21% preferred television and 10.9% indicated newspapers. Also, 36.6% preferred social media, which includes Instagram, Tango, Viber, Twitter, WhatsApp and Facebook. Instagram is the least preferred medium among the channels, with only 3.8% of the respondents indicating that they prefer it to the other options.

Further, the results indicate that television was rated the second most preferred medium. As stated in the quarterly reports of the National Communication Authority (2015), there are 13 television receivers for every 1,000 people as compared to radio, which has 219 receivers for every 1,000 people. A majority of these receivers are mostly found in the urban communities in Ghana. Thus, the findings confirm the view by experts that radio is the most effective communication for rural development.

Hornick (1990) states that blending media and interpersonal communication is a fundamental intervention. The study concluded that a majority of respondents indicated radio as effective media that influences community development. The reasons were that radio reaches out to rural communities where residents cannot read and write at a low cost, and it broadcasts in local languages that residents can understand.

**Table 1. Most Preferred Media Channel**

Media channel	N	Percentage
Instagram	15	3.8
Tango	21	5.3
Viber	24	6.1
Twitter	20	5.1
WhatsApp	25	6.4
Facebook	39	9.9
Newspaper	43	10.9
Television	79	20.1
Radio	116	32.4
Total	392	100.0

Source: Author's field survey, 2015.

Note: Dichotomy group tabulated at value 1.

The data from this study indicate that out of 392 respondents, 51.5% in Tamale, 12.6% in Jena, 13.6% in Yong, 12.1% in Dungu and 10.2% in Parishe chose radio as having influenced the development of their communities most effectively. In addition, 41.8% of the respondents in Tamale Central, 23.1% in Jena, 15.4% in Yong, 9.9% in Dungu and 9.9% in Parishe chose television as having influenced the development of their communities most effectively. Also, 57.1% in Tamale Central, 21.4% in Jena, 14.3% in Yong, 0.00% in Dungu and 7.1% in Parishe chose newspapers as being most influential. Moreover, 33.3% of the respondents who lived in Tamale Central, 33.3% in Jena, 11.1% in Yong, 0.0% in Dungu and 22.2% in Parishe chose social media as the most effective medium.

Table 2 shows that the most effective source of developmental information is radio, followed by television, social media, newspapers, information from the Metro-Assembly (Tamale Metropolitan Assembly, TMA), non-governmental organizations and cooperative organizations. Within the radio category, 59.8% of the residents in Tamale Central rated radio as the most effective medium for development. The rest of the respondents were almost evenly distributed among the remaining communities. In the television category, 48.7% of the residents of Tamale Central agreed that television is second to radio, and 26.3% of the residents in Jena held the same view. The remaining residents were equally distributed across Yong and Dungu (6.6% each), and Parishe had 11.8%. With reference to information provided by the TMA to communities for the purpose of development, 47.8% of the respondents ranked the TMA as the third most effective source of development information. In addition, 19.7% of the respondents from Dungu also rated TMA as the third most effective source. The remaining respondents are near evenly distributed among Jena, Young and Parishe. Among all the sources of development information, only 9.1% of the respondents in Yong considered information from social media as the most effective. Hence, from Table 2, the study shows that radio is the most effective medium for community development. This confirms the findings of Hornick (1990), which clearly indicate that radio stood high among the other categories of media channels that influence community development most effectively.

### **6.7. Development-oriented FM radio programs**

The section investigates the development-oriented programs of FM radio and considers the scale variance of deleted items, corrected item total correlations, squared multiple correlations and Cronbach's alpha if items are deleted, as outlined below. McClelland (1961) points out that ideas are considered an independent variable that explains specific outcomes of a study. Based on this, development communication proposes that a change in radio programs will contribute greatly to transforming the behavior of an individual or a community at large.

In assessing whether or not FM radio programs were development oriented, a 5-point Likert scale was used to measure the Cronbach's alpha standardized item of how FM radio reports on local news, education, agriculture, health, local governance/politics, women and children, talk shows, social issues, culture, discussion, environment, music, sports, peace and reconciliation, and religious programs. The merged responses of the 15 items are shown Table 3. In other words, this was adopted to determine whether or not the 15 items were related and were internally consistent, or the appropriateness of the index

As shown in the reliability statistics in Table 4, Cronbach's alpha is .730, indicating a high level of acceptability. Looking at the item totals in Table 4, there was even the possibility of improving the value of Cronbach's alpha if an item were to be deleted. In doing so, the alpha values would fall below .730 for all variables except music, which would increase to .754 if this variable were deleted. This justifies the inclusion of all items in the index except music. Thus, the remaining 14 items can be combined into one variable. Therefore, Table 3 shows Cronbach's alpha at .754.

The study employed Cronbach's alpha standardized items to measure the internal consistency of the index and to illustrate how the items were closely related. Thus, it is considered as

**Table 2. Sources of Information that Influence Development Most Effectively**

Development		Community					Total
		Tamale Central	Jena	Yong	Dungu	Parishe	
Radio	N	107	19	16	14	23	179
	(%)	(59.8)	(10.6)	(8.9)	(7.8)	(12.8)	(100)
Television	N	37	20	5	5	9	76
	(%)	(48.7)	(26.3)	(6.6)	(6.6)	(11.8)	(100)
Metro-Assembly	N	32	7	7	13	8	67
	(%)	(47.8)	(10.4)	(10.4)	(19.4)	(11.9)	(100)
Chiefs	N	13	4	8	5	3	33
	(%)	(39.4)	(12.1)	(24.2)	(15.2)	(9.1)	(100)
Newspapers	N	3	0	3	3	4	13
	(%)	(23.1)	(0.0)	(23.1)	(23.1)	(30.8)	(100)
Non-governmental organizations	N	0	0	9	3	0	12
	(%)	(0.0)	(0.0)	(75.0)	(25.0)	(0.0)	(100)
Social media	N	8	0	1	2	0	11
	(%)	(72.7)	(0.0)	(9.1)	(18.2)	(0.0)	(100)
Cooperative organizations	N	0	0	1	0	0	1
	(%)	(0.0)	(0.0)	(100)	(0.0)	(0.0)	(100)
Total	N	200	50	50	45	47	392
	(%)	(51.0)	(12.8)	(12.8)	(11.5)	(12.0)	(100)

Source: Author's field survey, 2015.

Notes: Dichotomy group tabulated at value 1. Percentages are based on the number of responses.

**Table 3. Item Total Statistics of Development-Oriented Programs**

Programs	Scale variance if item deleted	Corrected item total correlation	Squared multiple correlation	Cronbach's alpha if item deleted
Local news	32.589	.244	.152	.724
Educational programs	32.618	.227	.180	.725
Agricultural programs	30.275	.383	.304	.710
Health programs	32.211	.274	.226	.722
Local governance/ politics	30.114	.398	.237	.709
Women and children	30.475	.387	.326	.710
Talk shows	29.652	.401	.298	.708
Social issues	31.779	.375	.215	.714
Cultural programs	30.762	.329	.161	.716
Discussion programs	29.640	.471	.380	.701
Environmental programs	29.528	.461	.313	.702
Music	30.935	.136	.229	.754
Sports programs	28.628	.423	.267	.705
Peace and reconciliation programs	31.309	.335	.243	.716
Religious programs	32.185	.283	.169	.721

Source: Author's field survey, 2015.

Note: Cronbach's alpha as a standardized item.

**Table 4. Reliability Statistics**

Cronbach's alpha	Cronbach's alpha based on standardized items	Number of items
.730	.745	15

Source: Author's field survey, 2015.

a measure of reliability. Besides measuring the internal consistency, this study provides evidence of the scale in question. Table 4 indicates that Cronbach's alpha based on standardized items is 0.745. Moreover, an exploratory factor analysis can also check dimensionality. Technically, Cronbach's alpha is not a statistical test, but a coefficient of reliability. It can also be written as a function of the number of test items, and an average inter-correlation among them. For conceptual purposes, below is the formula for the Cronbach's alpha standardized correlation coefficient:

$$\alpha = \frac{N \cdot \bar{c}}{\bar{v} + (N - 1) \cdot \bar{c}}$$

where N is equal to the number of items, C-bar is the average inter-item covariance among the items, and V-bar equals the average variance.

With regard to whether FM radio programs were development oriented, the results show that 52.3% strongly agreed, 45.2% agreed, 1.5% strongly disagreed and 0.8% disagreed. The results

indicate that a majority of respondents strongly agreed that FM radio programs were development oriented, which confirms Learner’s (1958) assertion that favorable attitudinal change of audiences and development is achieved when communities are exposed to modern media (see, also, Fair, 1989, 97; Levy & Banerjee, 2008; Melkote & Steeves, 2001; Shah, 2011).

A 5-point Likert scale measuring whether FM radio programs are development-oriented shows that 49% of the respondents strongly agreed and 23.2% agreed. Therefore, 72.2% of the respondents considered FM radio programs as development oriented. According to Agunga (1997), radio is a tool that disseminates modern ideas that are useful for the improvement of quality of life in communities. This information includes agriculture, health, politics and educational programs. Agunga (1997) further states that the media are crucial for the creation of an enabling environment that is necessary for development programs to succeed (see, Adam & Harford, 1998; Fisher, 1990; Katz & Wedell, 1977; Mody, 1991; Vargas, 1995). Thus, the study reveals a significant proportion (40%) of respondents who strongly agree that they use FM radio to obtain information on development issues.

**6.8. The influence of FM radio on the audience and its impact on their lives**

This section investigates how use of FM radio has impacted the lives of listeners in the selected communities. The study delved into whether FM radio listenership contributes positively or negatively to the lives of respondents from the communities under study.

On whether FM radio programs have adequately led to improvements in the wellbeing of the people in these communities, the results show that, out of the 392 respondents, 88% indicated that this has been accomplished. In addition, 12% indicated that FM radio has not achieved this. Thus, a majority of the respondents agreed that listening to FM radio programs has led to adequate improvements in the wellbeing of their communities. This stresses the impact of FM radio use on development in rural communities and corroborates Alam and Singh’s (2022) view that the media is of great importance in increasing awareness as is the case in India’s rural development (see, also Rogers, 1976; Myers, 2008; Rajadurai, 2020). Rogers (1962), however, maintains that interpersonal communication is crucial when people are making decisions to adopt new ideas or innovations. Also, according to Katz and Lazarsfeld (1955), media audiences rely heavily on opinion leaders in their social network rather than solely on the mass media. Table 2 shows that a majority of respondents strongly agreed that FM radio programs in the selected communities were development oriented.

**Table 5. Programs Relevant to the Improvement of Lifestyles**

Programs	Frequency	Percentage
Education	140	31.7
Agriculture	86	21.8
Health	19	4.8
Religion	39	8.9
Culture	21	5.4
Politics	38	8.7
Environment	8	2.0
Sports	23	4.9
Entertainment	2	0.51
Marketing	2	0.51
Music	2	0.51
Not applicable	47	10.3
Total	392	100

Source: Author’s field survey, 2015.

Note: Dichotomy group tabulated at value 1.

Thus, the study concludes that if programs are development oriented, then they have a higher likelihood of positively affecting the people's wellbeing.

Table 5 rates the relevance of FM radio programs and how they lead to the improvement of the lifestyles of respondents. The results show that 31.7% of respondents considered educational programs to be the most relevant programs for improving lifestyles. Agricultural programs were ranked second, with 21.8%, followed by health (8.8%), politics (8.7%), culture (5.4%), religion (5.4%), sports (4.9%), and entertainment, marketing, and music (0.51% each). However, the remaining 47 respondents were not able to answer the question because they were not regular listeners of FM radio.

In terms of whether FM radio programs have had any positive influence on the personal lives of listeners, 78.1% of the respondents indicated that FM radio has an influence on their lives, while 21.9% considered FM radio programs to not have any positive influence. Thus, a majority of respondents affirmed that radio programs have had positive influences on their personal lives. According to Terris (1992), personal choices determined changes that were positively related to the development of the individual. Although institutional changes are necessary to drive development objectives in a community, individual agency and responsibility is essential for sustainable behavioral change and development. This is what the audience-centered focus of uses and gratification is arguing by pointing that media users are aware of their needs and approach media consumption in search of the programs that gratify those needs.

Furthermore, the results show that respondents deduced reasons for the FM radio positively influencing their personal lives. A multiple-response tabulation of reasons given by respondents shows that a plurality, constituting 31.4% of the multiple responses, agreed that FM radio programs influence their personal lives positively because they were informative, while 14.5% observed that FM radio programs taught them moral education. Furthermore, 9.2% agreed that FM radio teaches religious education. Other factors that were less important each composed only 0.3% of the total multiple responses.

## 7. Conclusion

This study explored audience use of FM Radio programs in Tamale and its environs and how such listenership impacts rural development in northern Ghana. The findings confirmed the conventional wisdom in the literature that, among the mass media, FM radio is the most popular source of information in rural Africa. In this study, respondents indicated that they were habitual listeners and consumed FM radio as their major source of information. This is due to the ease of accessibility, low cost and programing in local languages. In terms of efficacy, the study revealed that the populace viewed their interaction with FM radio as particularly impactful in the following development issues: education, agriculture, health and entertainment. Respondents indicated that information conveyed on the aforementioned issues had a positive impact on their wellbeing and personal lives. They contend that through their listenership of radio programs they gained useful moral and religious knowledge while the agricultural and health programs conveyed information that was useful for their economic wellbeing as farmers and for their health, respectively.

However, there are challenges to the efficacy of FM stations in the view of respondents because of the following: a gender gap in listenership of FM stations in which fewer women tune in compared to men; a lack of innovative programs; poor timing; and the perception that programs feature urban content. Thus, it behooves policymakers and development stakeholders to assist the managers of FM radio stations to better conduct audience analyses in order to effectively engage and target the rural listenership that is hungry for more development information broadcast at the right times. Theoretically, the northern Ghanaian case validates the view that development communication should de-emphasize persuasion from the top and instead focus on horizontal dialogical processes where the people create and share information with each other to reach a common understanding, as posited by Rogers (1976). The use of users and gratification reaffirms the aforementioned point as it demonstrates that radio audiences have agency when it comes to

listenership and as such they will only tune in to stations and programs that address their individual needs. To achieve this, governments and development agents seeking to communicate innovative development ideas via radio would have to engage community members to understand their needs and include them in development programming on radio stations in order to achieve an efficacious outcome for all.

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