

Assessment of Farmers' Perceived Utilization of the Entertainment-Education Format for Sourcing Agricultural Information in Southeastern Nigeria

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ABSTRACT Utilization of Entertainment-Education format was assessed to determine its potential use by farmers for sourcing agricultural information in southeastern Nigeria. A multi-stage sampling procedure resulted in the selection and interview of 612 farmers. Findings reveal that majority of the farmers were in their active years (70.8%), married (81.3%) and engaged more in crop farming (63.7%). Radio rates as the most easily accessible (93.7%), preferred (81.6%) and used (74.8%) entertainment medium for sourcing agricultural information. However, music (35.6%), folklores (39.4%) and drama (32.9%) were rated as highly relevant by farmers. Farmers' sex ($\chi^2=10.6$; $p < 0.05$) agricultural enterprise ($\chi^2=26.2$; $p < 0.05$) and education ($\chi^2=17.0$; $p < 0.05$) had significant relationship with respect to their perceived relevance of EE media for sourcing agricultural information. It is recommended that media relevance be considered in the design and formulation of EE based agricultural programs while all EE media should be exploited for disseminating agricultural news.

I. INTRODUCTION

The power of popular entertainment in shaping the perceptions and practices of its viewers and listeners cannot be overemphasized. Both radio and television Entertainment-Education (EE) shows, programs, movies, folklores and music not only command the attention of their audiences, but also reinforce existing positive behavior, demonstrate new behavior, and affect audience emotions (Coleman 1986; Yahaya 2000; Olajide and Yahaya 2003). This is in agreement with Bandura Social Learning Theory (1977) as reported in Singhal and Rogers (1999) which presupposes that individuals learn a lot not only in a formal setting but also by observing role models in everyday life including characters in movies and television programs. Development oriented entertainment programs over the years have maximally explored the opportunities inherent in the potentials of EE media and especially leaning on the position of this theory to promote pro-social dispositions as exemplified in massive enrolment in adult literacy classes in *Ven Comigo* (Mexican telenovela in 1975) and poster-letter-manifesto by 184 villagers in an Indian village following radio broadcast of *Tinka-Tinka Sukh* that promoted equal status for women while denouncing inhuman treatment of women in Indian village of *Lutsaan* (Singhal and

Rogers 1999). The far reaching effects of several and varied EE format is equally well documented in public acceptance in Asia, Latin America and in recent times in Africa especially in East and Southern Africa where it has been specifically deployed to address many pro-social and development issues (Singhal and Roger 2004; Tufte 2001).

In whatever forms, popular entertainment provides an ideal outlet for sharing development information and positively affecting behavior. In most cases when used, EE format is interested in providing information that covers a variety of topics. For instance, the Centre for Disease Control (CDC 2005) in Atlanta, engaged the Hollywood, Health and Society (HH&S) to develop a research agenda for EE that addressed many pro-social issues in American society including violence against women, suicide, lead poisoning, hospital infection, bioterrorism, youth health issues, HIV and AIDS and much more. Tufte (2001) and Cody Fernandes and Wilkin (2004) highlighted the significant potentials of entertainment media and posited that most radio and television shows that used these EE model had run for many years and are still found relevant in the present days.

In spite of these begging opportunities and potentials of EE, much of these have not been exploited in agricultural information dissemina-

tion as it were. Also, whereas its use for information dissemination has been investigated from media practitioners' perspectives (Olajide 2002), the opinions of the end users (farmers) have not been sought in any study. This justifies the import of this current attempt at investigating farmers' perceived utilization of the format for sourcing agricultural information.

Purpose and Objectives

In order to ascertain the perception of the target audiences than perceived for them by media practitioners in the previous study that attempt was made to investigate EE format utilization from the farmers' perspectives. Therefore, the following objectives guided the study as a follow – up to the recommendation in Yahaya and Olajide (2003) and Olajide (2002):

- Identify the personal and social characteristics of farmers in southeast Nigeria.
- Investigate farmers' access, perceived use, preferences and relevance of EE format in obtaining agricultural information.

II. METHODOLOGY

Study Area and Population

The study was conducted in southeastern part of Nigeria. The area as presently constituted has five states namely, Abia, Anambra, Ebonyi, Enugu and Imo states. It is predominantly Igbo speaking and houses one of the major ethnic nationals in Nigeria. The 2006 Census of Nigeria reported a total population of 16,395,555 for the five eastern states. The target population for the study consisted of all registered farmers with the state agricultural development programmes in the states identified above. The choice of the area was justified by the agrarian population found in urban, semi-urban and rural settlements in this region and the obvious contribution of the region to agriculture in Nigeria.

Sampling Procedure and Sample Size

A multi- stage and random sampling procedures were applied in selection of sample for this study. In the first stage, 60% of the states that constitute southeastern Nigeria were randomly selected. This process yielded selection of Abia, Enugu and Imo states. In the second stage, two extension zones each from 3 zonal extension dis-

tricts in each of the states were again randomly selected. This resulted in six zones that have a total of 72 extension blocks. In the third stage, 25% of the total extension blocks (18 blocks) were randomly selected while in the fourth stage, all extension cells in the 18 blocks were populated and this gave 90 extension cells

In the final stage, 10% of farmers registered with the extension agents in each extension cells and whose name fell within third quartile in the register were picked for randomness. A total of 612 farmers were selected and interviewed between 28th May and 31st July, 2010 using the Agricultural Development Projects' (ADPs) platforms in each of the state.

Measurement of Variables

Farmers were asked series of demographic questions, questions about their access to and perceived use, relevance and preference of EE media if adopted for agricultural information dissemination as currently being used for health and other development concerns. These variables were measured as follows:

Accessibility: Farmers were asked to assess how accessible are the EE media (radio, television, music, drama and folklores) that have used EE format or general entertainment programs in sourcing agricultural and other development information (for example, health). This was determined on a 3- point scale of highly accessible, lowly accessible and not accessible and was scored 2, 1 and 0 respectively.

Perceived Use, Preference and Relevance: Farmers were requested to assess perceived use, preference and relevance of EE media if adopted for disseminating agricultural news and information in their region. Perceived use was assessed on a 3- point scale of frequent use, moderate use and no use. Perceived preference was measured as high preference, low preference and no preference. Frequent use and high preference were scored 2, while moderate use and low preference were scored 1 and 0 was recorded for none preference and low use. Relevance was measured on a 4 - point rating scale of high relevance (3), moderate relevance (2), least relevance (1) and no relevance ((0).

III. RESULTS AND DISCUSSION

Available information on the personal characteristics of farmers in Table 1 indicates that

majority of the respondents (70.8%) were in their active years (age 20-50years) and were married (81.3%). The trend observed in farmers' age and marriage is common to previous findings which revealed that farmers population constitute very active people and family ties are very strong despite rural-urban migration that has threatened agricultural sector in Nigeria (Yahaya 2002). The table further reveals that more than one-third of the respondents (39.9%) were illiterate farmers. However, 20.5% attained secondary school education while 10.7% of the farmers had attained higher educational qualification status. The significant literate population of farmers in this study was corroborated by Oladeji (2011) who reported many farmers as possessing ability to read newspapers to access agricultural news. The literate proportion of the respondents can be considered significant (Ajayi et al. 2011) given the fact that the concept of literate farmers is a recent phenomenon in Nigeria due to staggering unemployment figures for the country which has forced quite significant proportion of the population that would have been employed in other sectors of the economy engage in one form of agricultural enterprise or the other, though on part-time basis or as one of the income generating activities. Majority of the respondents were male (80.7%) and crop farmers (63.7%) while 23.1% and 8.1% were livestock and Fadama/fruit farmers respectively. Farmers in this region of Nigeria cultivate mostly food crops like yam, cassava, maize and cocoyam. These crops are mostly found in large quantities both in cultivation and consumption as staple food in most parts of Nigeria (Abiodun et al. 2005). A greater proportion of the respondents (55.8%) were small farm holders and one-third (33.6%) were still tenants on the farmlands they operate. The tenant farmers phenomenon in this region confirms the densely populated terrain of the region. Southeastern Nigeria occupies the least expanse of land compared to neighboring south-south and can least be compared with the northern region of the country in terms of land mass. Therefore, free land holding is not widespread as obtained in other parts of the country. What obtains in respect of small farm holding is a common feature of Nigeria's agriculture where subsistence farming and land inheritance at family level still predominate.

Data on the accessibility of EE medium in Table 2 shows that radio was rated by 93.7% of

Table 1: Personal and social characteristics of the respondents (N=612)

<i>Variables</i>	<i>Frequency</i>
<i>Age</i>	
20-30 years	102(16.6)*
31-40 years	138(22.50)
41-50 years	194(31.7)
51-60 years	156(25.4)
> 60 years	22 (3.5)
<i>Sex</i>	
Male	270(44.2)
Female	342(55.8)
<i>Marital Status</i>	
Single	90(14.7)
Married	498(81.3)
Divorced	12 (1.9)
Widowed	12 (1.9)
<i>Educational Attainment</i>	
None	242(39.9)
Elementary school certificate	104(16.9)
SSCE/TCII	126(20.5)
OND/NCE	74(12.0)
HND /B.Sc	66(10.7)
<i>Agricultural Enterprise</i>	
Crop	390(63.7)
Livestock	142(23.1)
Forestry/Gardening	22 (3.5)
Fadama	50 (8.3)
Crop/Livestock	8 (1.3)
<i>Agricultural Holdings</i>	
Small	342(55.8)
Medium	186(30.3)
Large	84(13.9)
<i>Land Ownership Status</i>	
Personal	190(31.0)
Tenant	206(33.6)
Family Land	168(27.2)
Community Land	48 (8.0)

*Figures in parentheses are percentages

the respondents as the most easily accessible medium. This was followed by television (39.8%) while indigenous music (73.8 %) and folklore (37.5%) were both considered as not readily accessible. Table 2 further indicates that an appreciable proportion of farmers rated drama and folklore as lowly accessible. Radio had always been the most accessible media especially for illiterate farmers as found in other studies (Ajayi et al. 2011; Yahaya and Badiru 2002). The rating radio enjoys in this study is in line with previous efforts that reveal that radio is the most potent source of information dissemination to farmers and farmers' companion (Yahaya 1995 and 2002). Both radio and television stations abound in the study area with various EE programs, hence, the relative high rating of both media by respondents. Another plausible explanation for the popularity enjoyed by both radio and television with respect to accessibility and

preference could be due to the use of these media in the last two decades in Nigeria by international agencies. The British Department for International Development (DFID), United States Agency for International Development (USAID), John Hopkins University's Centre for Communication Program (JHU/CCP) and United Nations Children Education Fund (UNICEF) disseminate health, democracy and good governance, children's and women's rights and environmental development news and information on radio and television using entertainment strategies such as drama. This is as observed in various drama series in Nigeria such as "One thing at a time", "Asubata Gari", "Rainbow City" and "Kusaurara". These efforts to a large extent have reached both rural and urban settlements and targeted many audiences including artisans, farmers, traders and elites in most part of Nigeria in general in the last twenty years.

Table 2: Respondents' Accessibility to entertainment-education media

Variables	Highly accessible	Lowly accessible	Not accessible
EE on radio	574(93.7)*	38 (6.3)	0 (0.0)
EE on television	244(39.8)	240(39.2)	128(21.0)
Indigenous music	44 (7.3)	116(18.9)	452(73.8)
Folklore	66(10.9)	316(51.6)	230(37.5)
Drama	110(17.9)	430(70.6)	72(11.5)

*Figures in parentheses are percentages

Findings presented in Table 3 with regards to preference reveal that the trend in accessibility of EE media persists as farmers rated radio (81.6%) and television (30.9%) as the most preferred media to obtain EE based agricultural information. However, other EE media like music (8.6%), folklore (12.7%) and drama (17.7%) were lowly preferred for sourcing agricultural information. As observed earlier, profound rating of radio is probably because it is the most used medium in most rural settings in Nigeria in general. This can be explained with the comparative advantage it has over other media due to low cost of maintenance and portability. In the overall, both radio and television can then be judged as the most readily accessible, therefore, most preferable media. The perception on drama and folklores might be due to occasional use (annual and special occasions) of drama by Agricultural Development Programs of most states in Nigeria.

Table 3: Respondents' perceived preference for EE media for sourcing agricultural information

Variables	Highly preferred	Lowly preferred	Not preferred
EE on radio	498(81.6)*	90(14.8)	24 (3.6)
EE on television	192(30.9)	170(28.3)	250(40.8)
Indigenous music	52 (8.6)	304(49.6)	256(41.9)
Folklore	78(12.7)	264(43.1)	270(44.2)
Drama	108(17.7)	278(45.3)	226(37.0)

*Figures in parentheses are percentages

Data available in Table 4 contrast sharply with information in Tables 2 and 3, though radio continues to enjoy high rating in respect to perceived use as about three-quarter (74.8%) of the respondents perceived radio as the probable medium to be frequently used if EE is incorporated in agricultural information dissemination agenda in Nigeria. However, one significant revelation of the perceived use of EE media for sourcing agricultural information is the emergence of indigenous music as probable second most desired EE medium by 61.5% if EE format is adopted. Sujan (1993) and Olajide and Yahaya (2003) painted a similar picture in their studies about the potentials of music to convey development messages especially agricultural news. Worldwide, music has been acknowledged as one of the ancient entertainment tradition and its popularity makes it a potentially powerful medium to disseminate educational-development messages to target audiences though very little of these potentials have been used for pro- social purposes up to date (Brown and Singhal 1999). This explains respondents' stand on this medium as second most preferred medium. According to Sujan (1993), there are several advantages to using folk music to educate rural audience, it is popular, can provide immediate feedback, it is inexpensive and comes from perceived credible source. This finding corroborates and underscores the relevance of music based on earlier musical experiments in Nigeria where two of Nigeria's leading singers – King Sunny Ade and Onyeka Owenu in their album *Wait for Me* and *Choices* in the early 1990s taught couples how to talk more freely about sex and family planning and persuaded couples to use contraceptives. According to Singhal and Rogers (1999), the two songs became big hits and recorded high degree of success as music video of the two songs were broadcast on national television network and taught both rural and urban audiences about contraception and

responsible sexual behavior. The perceived frequent use of music by respondents can be linked to previous experience, though music is seldom used for development and pro-social issues in Nigeria. Therefore, this finding will help development planners both in Nigeria and in other parts of the world with similar context of resource availability, culture and other social milieu to utilize music in their development concerns.

Table 4: Respondents' perceived use of EE media for sourcing agricultural information

Variables	Frequently used	Moderately used	Not at all used
EE on radio	458(74.8)*	124(20.2)	30 (5.0)
EE on television	132(21.5)	166(27.2)	314(51.3)
Indigenous music	376(61.5)	208(34.0)	28 (4.5)
Folklore	46 (7.5)	388(63.3)	178(29.2)
Drama	240(39.2)	318(51.9)	54 (8.9)

*Figures in parentheses are percentages

The emerging picture in Table 5 relates to perceived relevance of agricultural information from EE media depicts partly what obtains on perceived preference and use. While radio (71.7%) maintains its status as leading EE medium in the study area, traditional media like indigenous music, folklore and drama enjoyed appreciable ratings by 35.6%, 39.4% and 32.9% respectively as highly relevant media. Traditional media practitioners in Nigeria expressed positive disposition to the use of several indigenous media to disseminate agricultural information (Olajide and Yahaya 2003). Perceived relevance by respondents reinforces the popularity enjoyed by the three media (music, folklores and drama) in relation to perceived use. These media were rated though at lesser level as lowly preferred in the preference rating; the three media were, however, perceived as highly relevant. The dwindling fortune of television for use and relevance, in spite of its ratings as second most accessible and preferred medium may be due to the economic realities of the farmers who though may afford to buy one but hindered by competing demand for resources by other pressing needs. This can be due to relatively low socio-economic status of most farmers in rural Nigeria. Much as they would have preferred to use television as EE medium for sourcing agricultural information, perhaps, their low economic status could explain why they perceived traditional media (folklore,

music and drama) as more relevant for their set up.

Table 5: Respondents perceived relevance of EE media for sourcing agricultural information

Variables	Highly relevant	Moderately relevant	Least relevant	Not relevant
EE on radio	438(71.7)	110(17.9)	26 (4.3)	38 (6.1)
EE on television	160(26.1)	80(13.1)	108(17.7)	264(43.1)
Indigenous music	218(35.6)	142(24.3)	152 (24.7)	94 (5.4)
Folklore	242(39.4)	196(32.0)	138(22.5)	36 (6.1)
Drama	202(32.9)	190(31.1)	156(25.4)	64(10.6)

*Figures in parentheses are percentages

Tables 6 and 7 present the result of inferential statistics. The degree of association between respondents' characteristics and perceived preference for EE media (Table 6) reveals that there is a strong association between farmers' education ($\chi^2 = 18.0$, $p < 0.05$), sex ($\chi^2 = 13.0$, $p < 0.05$) and agricultural enterprise ($\chi^2 = 24.1$; $p < 0.05$) and perceived preference for EE media. This implies that a proposed EE program for agricultural information dissemination should take into consideration farmers' education, sex and agricultural enterprise. For instance, information needs of a male literate crop farmer will be different from information needs of a female non literate Fadama farmer. This means that agricultural information from EE media should consider farmers' level of education, be gender sensitive and agricultural enterprise specific to appeal to diverse audiences of agricultural development news and information.

Table 6: Chi-square analysis of respondents' characteristics and perceived preferences for EE media

Variables	χ^2	CC	Df
Education	18.0*	0.45	8
Agricultural enterprise	24.1*	0.34	10
Agricultural holdings	6.0NS	0.16	4
Sex	13.0*	0.20	2

* Significant $p < 0.05$

NS = Not significant $P > 0.05$

CC: Contingency Co-efficient

df = degree of freedom

Data in Table 7 indicates that all identified farmers' personal characteristics sex ($\chi^2 = 10.6$; $p < 0.05$), education ($\chi^2 = 17.0$; $p < 0.05$) and agricultural enterprise ($\chi^2 = 26.2$; $p < 0.05$) were

significantly related to farmers' perceived relevance of EE media to source agricultural information. This implies that all EE media available can serve relevant purposes in information needs fulfillment and for various farmers of diverse social characteristics. Therefore, the concept of relevance poses a lot of challenges for EE practitioners, agricultural development agencies and communication experts who should consider this crucial concept in the design and formulation of EE based agricultural programs. Singhal and Brown (1996) while addressing problems and challenges of entertainment communication articulated and emphasized creation of an appropriate EE mix as one of the several challenges facing EE format utilization. Appropriateness can be interpreted in this context to mean relevance, hence, the need to seriously consider and address this challenge.

Table 7: Farmers' characteristics and perceived relevance of EE media

Variables	χ^2	CC	Df
Education	17.0	0.43	8
Agricultural enterprise	26.2	0.28	10
Agricultural holding	11.5	0.21	4
Sex	10.6	0.18	2

*Significant $p < 0.05$

NS = Not significant $P > 0.05$

CC: Contingency Co-efficient

df = degree of freedom

IV. CONCLUSION

Entertainment-Education on radio cuts across all variables (accessibility, use, preference and relevance) by farmers' assessment of the EE media for sourcing agricultural information. However, there is a high probability to use traditional media (especially indigenous music) for sourcing agricultural information if available. This assumption does not necessarily undermine the strengths and potentials of conventional media (radio and television) given the fact that it appeals to mass audiences simultaneously.

In addition, going by specific study variable, radio is the most accessible and mostly used EE media because its preference and relevant status among other EE media to farmers in Nigeria. Indigenous music and other traditional sources of EE (folklore and drama) will also serve useful purposes given the perceived preference expressed for these media use.

V. RECOMMENDATIONS

Based on the findings of this study, the following recommendations are offered:

1. Emphasis should be placed on radio EE programs for disseminating agricultural development information to farmers in developing countries that lack access to other sophisticated media like internet and other forms of information communication technologies that are currently limited.
2. Occasional, annual and nominal use of indigenous music and drama should be regularized to fall in line with the thinking of farmers who though preferred the media but have limited access.
3. The concept of relevance should be important consideration for EE practitioners, agricultural development agencies and communication experts in the design and formulation of EE based agricultural programs.

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APPENDIX

The followings are meanings of non-English words used in this article:

<i>Asubata Gari:</i>	Rainbow City
<i>Kusaurara:</i>	Listen
<i>Ven Comigo:</i>	Come Along with Me
<i>Tinka Tinka Sukh:</i>	Happiness lies in small thing
<i>Fadama:</i>	Wet irrigable lands