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Comparative Analysis of Researchers', Extension Agents' and Farmers' Perception of the Use of Entertainment- Education (EE) for Agricultural Information Dissemination in South-Western Nigeria

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Abstract

Entertainment- Education (EE) seeks to purposefully use entertainment media to educate targets about development intervention. Though, an innovative communication approach for addressing development related issues, its use and potentials for dissemination and adoption of agricultural technology has not been fully harnessed. The study was conducted to compare the perception of researchers, extension agents and farmers in southwestern Nigeria on the use of EE for agricultural information dissemination. One hundred and sixty one respondents were sampled using multistage sampling procedure. Data were collected using questionnaire and analysed using descriptive and inferential statistics. Majority (72.1%) of the researchers had a high perception of the use of EE. More than half (54.7%) of the extension agents and about two-thirds (61.1%) of farmers had a low perception towards the use of EE strategy. However, there was an overall high perception of EE by 50.3% of the total respondents. Researchers, extension agents and farmers differed ($F = 5.779$; $P < 0.05$) in their perception of the use of EE for agricultural information dissemination. The overall favourable perception of use of EE for agricultural technology dissemination implies that if conscious efforts are made it offers a potent medium for agricultural information dissemination.

Keywords: Entertainment-education, Perception, Agricultural information dissemination

Introduction

Studies (Yahaya and Badiru, 2002; and Ajayi, 2006) have shown that one of the several ways to assist farmers in their many farm enterprises is the provision of adequate, timely and up to date information on how to increase their production. In the opinion of several authors (Sanusi *et al*, 2009; Omenesa and Shittu, 2007), this goes a long way to mitigate the effects of problems and challenges faced on the farms. New technological systems conveyed in information dissemination empower people especially the rural dwellers (Ajayi, 2006).

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Entertainment-Education (EE), which seeks to purposefully use entertainment media as part of organized communication campaign designed to educate viewers about certain issues, signifies an innovative communication approach for addressing the various problems of development (Singhal and Rogers; 1999) including agriculture. Several successes and effectiveness of EE in promoting social change especially in the field of health have been reported in several countries like Mexico, India, the Gambia, the Philippines, Turkey, and Nigeria through various radio and television drama series like *I need to know* and the popular *Abule olokemerin* (Nigeria).

Beyond successes recorded in EE utilization in many fields of human endeavour, EE necessarily employs a multi-disciplinary network where stakeholders and skilled professionals such as agricultural agents, literary teachers, health workers, family counselors, among others have to collaboratively work together concerning the educational topic to be discussed (Singhal *et al*, 1993). Though many studies (Yahaya and Olajide 2003; Olajide and Yahaya, 2003) have established the relevance of EE both for disseminating and sourcing (Olajide and Yahaya 2004; Olajide 2012) agricultural information, especially from media practitioners' and farmers' perspectives, yet EE strategy has not been exploited for agricultural information dissemination. Hence, the need arises to find out the perception of researchers and extension agents as well as the end-users (farmers) about the use of entertainment education strategy for agricultural information dissemination. It is also important to compare stakeholders' perceptions in order to determine the extent of agreement or differences which will indicate level of understanding between stakeholders thereby laying groundwork for commencement of a sustainable EE programme for agriculture. It is therefore imperative that a study compares the perception of stakeholders in the use of EE strategy for agricultural information dissemination. Therefore, this study

1. compared the perception of stakeholders in the use of EE for agricultural information dissemination and;
2. established likely constraints in the use of EE strategy

Methodology

The study was carried out in southwest agro-ecological zone of Nigeria which comprises Ekiti, Lagos, Ogun, Ondo, Osun and Oyo states. The population for the study consisted of all researchers, extension agents and farmers. A multistage sampling procedure was used to select sub-samples for the study.

For researchers, in the first stage, Oyo state was purposively selected from the six states in this zone due to the concentration of national agricultural research institutes in the state. Three out of six representing fifty percent of the agricultural research institutes were randomly selected in the second stage. In the third stage, 30 percent of one hundred and seventy seven research scientists were randomly sampled. This resulted in a sub-sample size of 53 researchers.

For the extension agents and farmers, two states were randomly selected in the first stage (Ogun and Ondo states). In the second stage, a complete enumeration of extension staff in each state's Agricultural Development Programmes was carried out, which

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resulted in 220 extension agents. Thirty percent of the extension agents in the two states were proportionately selected randomly. This resulted in sample size of 66 respondents for the extension sub-group

For farmers, 50% (3) of the extension zones from each of the selected states (Ogun and Ondo) were randomly selected. From the selected zones in each state, 20% of the blocks were randomly selected, giving a total of four blocks. Furthermore, 20% of the cells in the selected blocks were randomly sampled which amounted to three cells in each states making a total of six extension cells. Thereafter, 10% of registered farmers were proportionately selected randomly from the chosen cells. This resulted into a total of 55 farmers. In all, a total of 174 respondents were used for the study. However, only 161 respondents returned useful questionnaires, representing 92.5% return rate.

Key variable (dependent variable) measured in this study was the perception of the study targets of the use of EE for agricultural information dissemination. This was measured by a 40-item perception statements derived from a set of contingency factors namely, audience characteristics, organizational factors, media environment, programme specific factors and infrastructural factors posited by Singhal and Rogers (1999) as factors that determine effectiveness or otherwise of EE strategy. Data analysis was carried out using percentages, mean and analysis of variance.

Results and Discussion

Personal characteristics of the respondents

Information in Table 1 shows that majority of the researchers (86.1%) were between the ages of 30-49 years while majority of the extension agents (65.7%) were between 40-60 years with majority of the farmers (87.0%) being 40 years and above. Overall, 92.6% of the total respondents were above 30 years of age. This implies that almost all the respondents belong to the young/middle aged group. Age is an important characteristic that determines the ability to pursue and learn new innovations. Therefore, the respondents would be mentally alert in learning new technologies and eager to obtain information or participate in programmes that will improve their productivity. This is consistent with previous studies (Adisa and Adekoya, 2011; Isiaka *et al*., 2009; Yahaya and Badiru, 2002), which reported that majority of researchers; extension agents and farmers in southwest Nigeria are above thirty years. Data in Table 1 further shows that 62.8% of researchers and almost similar proportions of extension agents (62.5%) and farmers (61.1%) were males. This is line with the result of Amusat (2012) who found that the field of agriculture and related professions like research and extension are still much male dominated.

All (100.0%) of researchers had a minimum of first degree certificate whereas only 21.9% of extension agents had a first degree or higher diploma with majority (59.4%) having HND certificate while more than half (55.5%) of the farmers had post-primary education. This is consistent with the findings of studies carried out by Isiaka *et al* (2009) and Adisa and Adekoya (2011) that reported more of extension agents having HND certificate while majority of researchers have masters' degree. This result implies that researchers and extension agents are more educated which is expected as they are involved in conducting

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research, discovering innovations in the field of agriculture and subsequent transfer to farmers. The reasonable proportion of farmers who are educated implies that they will likely be more receptive to innovations and modern technologies, and will also make conscious efforts to keep abreast of new information that will enhance their productivity. Data in Table 1 further reveals that majority of the extension agents (71.9%) had a professional experience of more than 7 years unlike the researchers whose majority (81.4%) had less than 7 years of professional experience.

Table 1: Distribution of respondents according to their personal characteristics

Characteristics	Researchers (53)	Extension agents (66)	Farmers (55)	Total respondents (174)
Age (years)				
Less than 30	11.6	9.4	1.9	7.5
30-39	53.5	25.0	11.1	28.0
40-49	32.6	39.1	53.7	42.2
50-60	2.3	26.6	18(33.3)	22.4
Sex				
Male	62.8	62.5	61.1	62.1
Female	37.2	37.5	38.9	37.9
Education				
No formal education	—	—	14.8	5.0
primary education	—	—	27.8	9.3
Post primary education	—	—	57.4	19.2
OND		6.3	—	2.5
HND		59.4	—	23.6
NCE		2.5	—	5.0
B. Sc	25.6	12.5	—	11.8
M.Sc	67.4	9.4	—	21.7
Ph.D	7.0	0.0	—	1.9
Professional experience (in years)				
Less than 7	81.4	28.1	—	66.5
7 and above	16.3	43.8	—	21.7

Source: Field surveys, 2013 Figures are percentages

Perception of researchers, extension agents and farmers on the use of entertainment education strategy for agricultural information dissemination

Data in Table 2 show that majority (72.1%) of the researchers had a high perception of the use of EE strategy for agricultural information dissemination. More than half (54.7%) of the extension agents and about two-third (61.1%) of the farmers had a low perception towards the use of EE strategy. Specifically, majority of the researchers had high perception of determinants of effective EE strategy like programme specific factors (62.8%), organisational factors (58.1%), infrastructural factors (62.8%) and audience characteristics (53.5%). However, all the researchers (100.0%) perceived low available media environment for EE use for agricultural information dissemination. This implies that

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while the researchers felt there are available organizations and infrastructure (research institutes, extension and media agencies), right scheduling of EE programme as well as ready audience to benefit from EE programme, they are skeptical of available media environment especially in the southwest Nigeria with the challenge of media saturation.

For the extension agents, 57.8%, 54.7% and 100.0% had low perception of organizational factors, programme specific factors and media environment, respectively. However, 54.7% of extension agents were favorably disposed to available infrastructural for dissemination of agricultural information dissemination. If this position is compared to what obtains for researchers, the issues of favouarble media environment persists as all the extension agents (100.0%) rated media environment low. In similar vein, they equally agreed with the researchers in terms of adequate infrastructure for EE use for agricultural information dissemination.

For farmers, 57.4%, 59.3%, 61.1% and 98.1% perceived programme specific factors, infrastructural factor, organisational factor and media environment as low, respectively, and 50.0% had a high perception of audience characteristics factor. This implies that farmers have a favourable perception of themselves as potential users of information arising from EE sources. This is a positive trend as farmers can be effectively motivated to patronise EE messages if deployed for agricultural information and technologies' dissemination. Also, from what obtains for the farmers' disposition to the deployment of this strategy, whereas both researchers and extension agents favoured infrastructure available for EE utilization, farmers differ from these stakeholders (extension agents and researchers) in available infrastructure. All stakeholders are however unanimous in rating media environment low in the use of EE for agricultural information dissemination. With over 30 radio stations in Lagos alone and the emergence of radio and television (both private and government owned) stations in adjourning states like Oyo and Ogun, it leaves enormous challenge for EE utilization for agricultural information dissemination.

Nevertheless, in spite of the envisaged constraints which may have necessitated the general unfavourable disposition of the use of EE from extension agents and farmers, the overall favourable perception (50.3%) of the respondents is a strong indication that EE strategy can still be successfully explored for agricultural information dissemination. However, according to the report of Olajide and Yahaya (2003), for EE to achieve desired results wherever it is adopted for agricultural dissemination, conscious efforts must be taken to tackle the inherent challenges.

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Table 2: Distribution of researchers', extension agents' and farmers' perception on use of entertainment education for agricultural information dissemination

	Researchers (53)		Extension Agents (66)		Farmers (55)	
	High	Low	High	Low	High	Low
Overall perception	72.1	27.9	45.3	54.7	38.9	61.1
Audience characteristics	53.5	46.5	54.7	45.3	50.0	50.0
Organisational Factors	58.1	41.9	42.2	57.8	40.7	59.3
Media environment	0.0	100.0	0.0	100	1.9	98.1
Programme specific factors	62.8	37.2	45.3	54.7	42.6	57.4
Infrastructural factor	62.8	27.9	54.7	45.3	38.9	61.1

Overall (researchers, extension agents and farmers) perception [High= 50.3%]
Source: Field surveys, 2013

Perceived constraints to the use of entertainment education strategy for agricultural information dissemination

Results in Table 3 show that funding was perceived to be a major constraint to the use of EE strategy by almost all the respondents (96.9%). This corroborates Olajide and Yahaya's (2003) position that funding was a major threat to EE in their study of traditional media practitioners' perception of EE utilization for agricultural information dissemination. Entertainment-Education programmes require a high start-up capital and for it to be effective; they have to be adequately funded. Table 3 further reveals that 79.5% of the respondents perceived that lack of infrastructure could pose a threat to the effective use of EE for agricultural information dissemination. This contradicts earlier positions of extension and researchers in this study as they perceived infrastructural factors as available for EE. Other constraints identified were literacy level of the farmers (75.8%), farmer's interest (75.8%) and general neglect agricultural sector (62.7%) suffers. Given the enormity of proportion of respondents who prompted these constraints, formidable strategies must be evolved to put EE utilization for agricultural information dissemination in sound footing.

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Table 3: Distribution of respondents' perceived constraints to the use of entertainment education for agricultural information dissemination

Constraints	% indicating Yes (n=174)
Funding	96.9
Farmer's level of literacy	75.8
Farmer's interest	75.8
Lack of infrastructure	79.5
Neglect of agricultural sector	62.7
Media credibility	58.4
Media saturation	57.1

Source: Field survey, 2013

Difference in respondents' perception of EE for agricultural information dissemination

Results in Table 4 show that there was a significant difference in the perception of researchers, extension agents and farmers on the use of EE for agricultural information dissemination (F = 5.779). This implies that researchers, extension agents and farmers differ in their perception of deployment of EE for agricultural information dissemination. The unfavourable disposition of both extension agents and farmers as against that of the researchers could perhaps be the reason for this. Also, the varied positions of stakeholders on germane factors especially infrastructural factors could also possibly explain this finding.

Table 4: Differences in respondents' perception on use of entertainment education for agricultural information dissemination

	Mean squares	F-ratio	p-value
Between Groups	1.452	6.145	0.03
Within Groups	0.236		

Further analysis of difference in respondents' perception using the Tukey post-hoc test (Table 5) reveals that while there was a statistical significant difference between the perception of researchers and extension agents ($\overline{X}$ = 0.268) and between researchers and farmers ($\overline{X}$ = 0.332), there was no significant difference between the perception of extension agents and farmers ($\overline{X}$ = 0.642) on the use of EE for agricultural information dissemination. Therefore, the perception of extension agents and farmers towards use of entertainment education strategy is similar but different from that of researchers. This could be attributed to the traditional closer link and interaction between extension agents and farmers as against farmers and researchers.

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Table 5: Tukey post-hoc test.

		Mean difference	Significant value
Researchers	Extension agents	0.26781	0.06
	Farmers	0.33204	0.01
Extension Agents	Researchers	-0.26781	0.006
	Farmers	0.06424	0.476
Farmers	Extension agents	-0.06424	0.476
	Researchers	-0.33204	0.001

Conclusion and Recommendations

While researchers are favourably disposed to the use of EE for agricultural information dissemination, both extension agents and farmers rate the strategy low. In another perspective, while both researchers and extension agents favoured infrastructure available for EE utilization, farmers differ in this regard. All stakeholders are however unanimous in rating media environment low in the use of EE for agricultural information dissemination. Overall, more respondents favoured the use of EE strategy for agricultural information dissemination, therefore, its potentials should be exploited for disseminating timely agricultural information while conscious efforts should be made towards funding agricultural projects and the sector in general given threat this poses to overall effectiveness of EE for disseminating agricultural information.

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