Factors influencing choice of communication media for acquisition of agricultural information among gender categories in Kilosa and Mvomero districts of Tanzania

ABSTRACT

The study examinedsocio-economic factors influencing choice of communication media for acquisition of agricultural information among gender categories, that is, men (above 35 years), women (above 35 years), and youths (from 18 years to 35 years)in Kilosa and Mvomero districts of Tanzania. The study employed a combination of quantitative and qualitative research methods in collecting data from a sample of 240 selected farmers. Information was collected using structured and semi-structured interviews, and document reviews.The collected data were analyzed through descriptive, inferential and qualitative approaches. A multinomial logit was estimated to identify socio-economic factors, that is, age, education level,asset ownership, marital status, income level and type of farming enterprisein influencing choice of communication mediafor acquisition of agricultural information among men(above 35 years), women(above 35 years), andyouths(from 18 years to 35 years). Results show thatthere was no direct relationship of being a man, woman or youth that could influence him/her to chooseeither television or video tape/DVD or mobile phones or Internet or leaflets or booklets over radio. In addition, the choice of leaflets and television bythe farmer over radio in rural areas was influenced by their education level and incomeat 1% and 3% level of significance respectively. The increase of 1.5 years in schooling influences the farmer to choose leaflets than radio. Similarly, increase of incomeby 0.3%influences him/hertochoose television rather than radio. This enables him/her to meet approximately 2% of costs related to television and its operation.This study recommends that policy-makers should formulate appropriate strategies for mobilizing financial resource to enableGovernment's intervention on subsidizing electronic media such as television to reduce itsbuying and associated accessoriescoststo boost its usage bylow-incomefarmersfor timely access to agricultural information for increased production.

Key words: Agricultural information, communication media choice, access, television

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1.0 INTRODUCTION

In developing countries, enhanced farmers' decisions related to agricultural production requires accessibility of agricultural informationlike farming and livestock husbandry practices, weather forecast, markets, credits and post-harvesting(Leeuwis, 2004; Van den Ban, 2005; Abubakar *et al*, 2009;SoyemindHaliso, 2015; Mtega, 2018). Therefore, famers need to access right and timely agricultural information through appropriate communication media. Scholars have indicated that in developing countries, various organisations have been disseminating agricultural information to farmersthrough radio, television, video tape/DVD, mobile phone, internet, leaflets, and booklets (Fraser and Villet, 2000;Swanson, 2006; Abubakar *et al*, 2009;Van Mele, 2010, 2011; Parvizian*et al*, 2011; Omoteshoet *al*, 2012; Haumba and Kiddu, 2021).

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In Tanzania, studies have indicated thatfarmers have limited access to various communication media for accessing agriculturalinformation (Mattee *et al*., 2008; Chilimoet *al*., 2011; Lwoga *et al*., 2011; Mtega, 2021). Although there is registeredlimited access to communication mediato farmers in the country, but decision making on what communication media to choose or not for acquisition of agricultural information should not be underestimated. Scholars like Jirikoet *al* (2015); SoyemindHaliso (2015); Kilimaet *al.* (2016); Gao and Gustira (2020)have showed that ability and willingness todecide which Information and Communication Technology (ICTs) to choose or not to choose forutilizing agricultural information vary according to individuals' decisions.

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In rural areas, farmersare heterogeneous group and they differ in their socio-economic status(Rölling, 1996; Kalusopa,2005; McNamara, 2008; Kilimaet *al.* 2016; Mtega, 2018). It is important to realise that socio-economic factors influence different gender categoriesof farmers, that is, men (above years), women (above 35 years) and youths (from 18 years to 35 years) differently intheir choice of communication media such as either radio or television orvideo tape/DVD ormobile phone or internet orleaflets or booklets.It is well documented there is influence of socio-economic characteristics on choice for communication media. For instance,Oskam and Hudson (1999); Severin and Tankard (2001); Servae and Malikhao (2002);Adomi *et al*. (2003); Van De Ban (2005); Fawole (2008); McNamara (2008); Rashid and Elder (2009); Ajayi and Solomon (2010); Mwakaje (2010); Nosheen *et al*.(2010); Parmar *et al*.

(2019) and Gao and Gustira (2020) established an influence of socio-economic factors like age, marital status, education level, asset ownership, income and type of farming enterprise in the choice of communication media.

The study by Oskam and Hudson (1999)and Rashid and Elder (2009)revealed age had a positive statistical influence e for communication mediachoice. Also, the study by Ajayi and Solomon (2010) indicated as farmer's age advance, he/she is likely not to be risk averter, hence he/she would choose communication media for accessing information.In relation to marital status, Adomi *et al*. (2003); Nosheen *et al*. (2010);Mtenga (2007) andParmar*et al*. (2019)indicated that marital status and genderto positivelyinfluence choice of communication media in agricultural production. The study by Fawole (2008), discovered a positive relationship between rise in educational level and farmers' choice for communication media for utilizing agricultural information.Another study by Adomi *et al.* (2003) and McNamara (2008) identified the ownership of assets to have positive influence onthe choice of radio, television and internet.Futhermore, Fawole (2008), Mwakaje (2010) and Nosheen *et al.*(2010) indicated that income influenced positively different individuals in their choice of booklets, posters and leaflets. Finally, scholars like, Van De Ban (2005) and Fawole (2008) foud that the type of farming enterprise either positively or negatively influence farmers in their choice of communication media.

Farmers as heterogenous groups in rural areas are composed of men (above 35 years), women (above 35 years) and youths (from 18 years to 35 years). These categories of farmers can access agricultural information by either opting choice of communication media, that is radio or television or video tape/DVD or mobile phone or internet or leaflets or booklets. However, it is not clearly known what socio-economic factors influence farmers into choosing either of the communication media. Previous studies on farmers'acquisition of agricultural information in Tanzania have addressed various dimensions including; Access to sources of information (Matovelo *et al*., 2006;Lwoga, 2011; Elly and Silayo, 2013; Mtega, 2021), Information and Communication Technology (ICTs) usage (Sife*et al*., 2010; Elly and Silayo, 2013; Kilima*et al*., 2016)and demographic and socio-economic influencing ICTs use in production and marketing in rural areas (Mwakaje, 2010; Nyamba and Mlozi, 2012).

Generally, above studies have not addressed socio-economic factors influencing choice of communication media for acquisition of agricultural information among gender categories.This paper seeks to understand howsocio-economic factors differently influencemen (above 35 years), women (above 35 years) and youths (from 18 years to 35 years) in choosing eitherradio or television or video tape/DVD or mobile phone or internet or leaflets or bookletsin accessing agricultural informationusing binomial logistic regression model. Specifically, the paper seeks to respond to this question: To what extent do socio-economic factors influence different farmers' categories choice for communication media in rural areas?

1.1Empirical Literatureon Choice of Communication Media

Within Tanzanian and developing countries context, nothing has been documented about thequantification of socio-economic factors influencing the choice of either radio or television or video tape/DVD or mobile phone or internet or leaflets or bookletsamong men, women and youths in acquiring agricultural information based onscholars Oskam and Hudson (1999); Adomi *et al*. (2003); Lwoga*et al*. (2011); Elly and Silayo (2013) as cited in Busindeli (2016).

Basing on media preference, Oskam and Hudson (1999)'s study that was conducted in South Plains and lower Panhandle of West Texas in the USA and revealed that educationand income levels significantly influenced communication media preference. The higher the income, the preference for newspapers and magazines.

Adomi *et al*. (2003), on the studyon genderand agricultural production in Nigeria revealed that its only female farmers who preferred newspapers and magazines in acquisition of agricultural information., while male farmers preferred neighbors and relatives as their sources of information, the study left youths in analysis.

Lwoga *et al*. (2011) revealed that the majority of farmers in rural Tanzaniapreferred radio as their agricultural information source. In addition, Elly and Silayo (2013) found that inIringa Rural Districtfarmers preferred traditional and interpersonalcommunication in for acquiring agricultural information and Information and Communication Technologies (ICTs) like radio, television, video, mobile phones, and Internet in accessing non-agricultural information.

Despite the good work by scholars,Oskam and Hudson (1999); Adomi *et al*. (2003);Lwoga*et al*. (2011); Elly and Silayo (2013) but could not empirically establish the influence of socio-economic factors in choice of different communication media. This study therefore, established the influence of socio-economiccharacteristics in influencing choice of eitherradio or television or video tape/DVD or mobile phone or internet or leaflets or booklets among men (above 35 years), women (above 35 years) and youths (from 18 years to 35 years) in the study area by using a multinomial logistic regression model.

1.2 The analytical models

1.2.1 Theoretical model

Data analysis for determining socio-economic factors influencing thechoice of either radio or television or video tape/DVD or mobile phone or internet or leaflets or bookletsamong men, women and youths in acquiring agricultural informationwas done through multinomial logistic regression model. This model forecasts the probability of choices when individuals had several choices and based on the study that has more than one dependent variables with both continuous and categorical independent variables (Greene, 2003; Hill*et al*. 2008; Gujarat*et al.*, 2009).

Mathematically, the individual farmer choice for communication media is presented bymultinomial logistic regression model equation below;

$C_{ij}=\beta Z_i+\varepsilon_{ij}$.....**(1)**

Where; $C_{ij=}$The maximum satisfaction that a farmer, "$_i$"derives from choice for communication media;

"j^{th}" ; Z_i= is a vector of individual socio-economic characteristics;

β=is the parameter to be estimated (coefficients); and

ε_{ij}= is the error term.

The equation expresses a multiple linear regression equationin logarithmic terms. As the study adopted a cross-section design and to overcomeviolation of the assumption of multicollinearity associated with the use of cross-sectional data, this is thelinear equation.

Generally, there are following assumptions on application of a multinomial logistic regression as outlined below;

i) There should be more than one independent variables, which are both continuous (that is, interval or ratio variable) and categorical variables (Table 1).
ii) There should be no multicollinearity among independent variables (Field, 2009). The author tested the suitability of the multinomial regression models and the Variance of Inflation Factor (VIF) for independent variables was less than 10 and standard error for beta coefficients (Table 2 & Table 5) less than two. Hence, no multicollinearity among independent variables.
iii) The multinomial logit model is already truncated. Hence, the test of normality was not performed assuming that dependent variables and data were normally distributed, hence the beta results (coefficients) were realistic (Greene, 2003).
iv) There should be a need for a linear relationship between continuous and categorical independent variables and the logit transformation of the dependent variables (Greene, 2003; Gujarat, *et al.,* 2009; Chawla and Sondhi, 2011)Therefore, the model was employed to establish the strengths of relationships between the variables and their influence on the choice of either radio or television or video tape/DVD or mobile phone

orinternet or leaflets or bookletsamong men, women and youths in acquiring agricultural information.

Table 1: List of Independent variables in the model

S/No	Description of Independent variables	Independent variables in the MLM model	Type of variable	Measure	Anticipated beta coefficient sign (+/-)
1	Age	AGE	Continuous	Number of years	+
2	Gender	GENDER	Dummy	0=Youth,1=Otherwise	+
3	Educational level	ELCM	Categorical	Years of schooling	+
4	Asset ownership	ASS	Dummy	0=Do not own asset,1=Own asset	+
5	Marital status	MS	Dummy	0=Not married, 1=Married	+
6	Income level	INCOME	Continuous	Amount in Tshs.	+
7	Type of farming enterprise	TFE	Dummy	0=Livestock keeping enterprise, 1= Crop farming enterprise	+/-

Source: Adapted from Busindeli (2016) study.

1.2.2 The empirical model

The multinomial logistic regression model has been widely employed to determine factors affecting the use of technology in several ineconomic and social studies (Kilima*et al*, 2016).

The multiple response in this study was whether the respondent chooses either television or video tape/DVD or mobile phones or Internet or leaflets or booklets over radio.

In order to establishfarmer'schoice for communication media based on socio-economic factors, based on the equation (1) and Table 2, the multinomial regression model is as indicated below:

$$\text{Logit}(C_i) = ln\left(C_i / 1 - C_i\right) = \alpha + \beta_1 AGE + \beta_2 GENDER + \beta_3 ELCM + \beta_4 ASS + \beta_5 MS + \beta_6 INCOME + \beta_7 TFE + \varepsilon_i \quad \text{.....(2)}$$

Where;

$ln\left(C_i / 1 - C_i\right)$ = Logit for choiceof communication media due to their accessibility;

α= is the constant term;

C_i= Choice for radio (Reference group, this had high frequency, hence used as a reference group); $1 - C_i$=Choice for either television, video tape/DVD, mobile phones, Internet, leaflets or booklets and/or both over radio;

β=is the parameter to be estimated (coefficients); β_i=(i=1,2,3,4,5,6);

ε_i= is the error term

Independent variables were (Table 1): AGE; ELCM; ASS; MS; INCOME; and TFE (as per the literature review in section 2 and the dependent variables were: radio=0 (reference group), television= 1, Video tape/DVD =2, mobile phone=3, Internet=4, leaflets=5, and booklets=6. In equation two (2) above,

C_i represents the probability of a community member to prefer radio, while $1 - C_i$ represents the probability of a man or woman or youthto choose either television, video tape/DVD, mobile phone, Internet, leaflets or booklets and/or both over radio.

The probability thatman or woman or youth prefers a certain option is restricted between one (1) and zero (0), ($0 \leq P \geq 1$) (Green, 2003; Hill *et al.*, 2008; Gujarat*et al.*, 2009).

Table 2: Independent variables in the multinomial logistic regression model

S/No	Description of Independent variables	Independent variables in the MLM model	Type of variable	Measure	Anticipated coefficient sign (+/-)
1	Age	AGE	Continuous	Number of years	+
2	Gender	GENDER	Dummy	0=Youth,1=Otherwise	+
3	Educational level	ELCM	Categorical	Years of schooling	+
4	Asset ownership	ASS	Dummy	0=Do not own asset,1=Own asset	+
5	Marital status	MS	Dummy	0=Not married, 1=Married	+
6	Income level	INCOME	Continuous	Amount in Tshs.	+
7	Type of farming enterprise	TFE	Dummy	0=Livestock keeping enterprise, 1= Crop farming enterprise	+/-

2.0 METHODOLOGY

2.1 Area of the study

Data used for this study was collected in Kilosa and Mvomero Districts. The areas are potential in agricultural production. Also, they are close to Sokoine University of Agriculture (SUA), research institutes and centres. In addition, thereis availability of a wide range of ICTs (Radio and television stations, Internet, tele-centres and mobile telephone networks.

2.2 Sampling and Sample Size

This study employed a purposive sampling procedure to select 240 respondents. The first level of sampling involved two wardsin each district. Then, eight villageswere purposively selected from each ward, that is, Chanzulu, Ilonga, Magole and Mandela villages (Kilosa District) and Nyandira, Kibuko, WamiSokoine and WamiDakawa villages (Mvomero District). Again, the proportionate stratified sampling procedure was used to select sample size in each study village for representativeness. In this context, a sample size of 30 respondents was proportionately stratified into men (above 35 years), women (above 35 years) and youths (from 18 years to 35 years) and generated in each study village.Such number was selected based on a fact that atotal number of not less than 30 respondents allowed statistical analysis as perBailey (1994). The sample proportion assigned to each village was determined by the popularity of the particular village in farming and accessibility to various communication media. Therefore, it was assumed thatmen (above 35 years), women (above 35 years) and youths (from 18 years to 35 years) farmers had access to either television or video tape/DVD or mobile phones or Internet or leaflets or booklets over radio. The sampled farmers were mainly obtained from current records of farmers who are involved in agricultural projects in the village offices.

2.3 Data Collection and Analysis

The study used a combination of quantitative and qualitative research methods in collecting data. Primary data were collected through enumerator administered structured questionnaires and Focus Group Discussions (FGDs). Primary data from respondents were supplemented by secondary data from various secondary sources, including Government records and other electronic sources. In this study, the probability of men or women or youths inchoosingeither television, video tape/DVD, mobile phones, Internet, leaflets or booklets over radiois not done arbitrarily. There are socio-economic factors that influence the choice. As revealed by Oskam and Hudson (1999); Severin and Tankard (2001); Servae and Malikhao (2002); Adomi *et al*. (2003); Van De Ban (2005); Fawole (2008); McNamara (2008); Ajayi and Solomon (2010); Mwakaje (2010); Nosheen *et al*.(2010); Parmar *et al*. (2019) and Gao and Gustira (2020) that socio-economic factors like age, marital status, education level, asset ownership, income and type of farming enterprise influence the choice of communication media. In determining choice of communication media among men (above 35 years), women (above 35 years) or youths (from 18 years to 35 years) in Tanzania, this study considered factors like age, marital status, education

level, asset ownership, income and type of farming enterprise. The collected data were sorted, cleaned, entered and processed by a Statistical Package for Social Sciences (SPSS) version 20, and analyzed using a multinomial logistic regression model. In addition, the collected qualitative data were analyzed through content analysis technique as per Krippendorff (2013). The words were classified into themes and sub-themes and established connections between them.

3.RESULTS AND DISCUSSION

3.1 Characteristics of rrespondents

In section 3 it was highlighted that a total of 240 respondents were interviewed. In Table 3, of the respondents, 35.8% were women (above 35 years), 35.4% were youths (both males and females as one group with age from 18 years to 35 years) and 28.8% were men (above 35 years).The majority, 76.7% of respondents were married and 80.8%, of the respondents completed primary school.In exploring economic status of respondents, result indicated that 57.5% of the respondents involved in crop farming activities, while a few, 9.6% reported to be involved in other income generating activitieslike formal employment, selling various products in shops and food vending. Finally, results indicated that 45.0% of respondents owned radio, mobileand television.These results were important when discussing empirical results inthe following sub-section. For instance, one would expect that ownership of mobileand television over radio would positively significantly influence men (above 36 years), women (above 36 years) and youths (from 18 years to 35 years) to choosethem for accessing agricultural information. However, a striking contrast has been observed, that is, income level positively influenced men, women and youth to choose television over radio for accessing agricultural information (Table 5).

Table 3: Distribution of respondents by socio-economic characteristics (n=240)

Characteristics of respondents		Percentage of respondents (n=240)
Gender		
	Men	28.8
	Women	35.8

	Youth	35.4
Marital status		
	Married	76.7
	Not married	16.3
	Divorced	7.0
Education		
	Primary education	80.8
	Secondary education	12.5
	Post secondary education	1.7
	Not attended formal education	5.0
Source of income		
	Crop farming activities only	57.5
	Livestock keeping activities only	8.8
	Livestock and crop production activities	24.2
	Other like business, formal Employment or dual activities	9.6
Type of assets owned	Means of communication: Radio, mobile phones and TV	45.0
	Land	39.6
	Generator or solar power	12.9
	Do not own asset	2.5

Source: Businderi (2016) study.

3.2 Statistical relationship between the accessibility and choice for communication media by men (above 35 years), women (above 35 years) and youths (from 18 years to 35 years)

The researcher tested whether there was significant interaction between accessibility and choice for communication media by men, women and youths, and the influence of gender categories to choose communication media or not in rural areas. Since the value for gender categories and accessibility to communication media might be orthogonal, the model corrected the orthogonality by reporting type III sum of squares. Results in Table 4 revealed that there was a statistically significant difference of interactions of means at $p \leq 0.016$ between the accessibility of communication media and their choice by men, women and youths in the study in rural areas ofMvomero and Kilosa districts. However, tests on the influence of gendercategories

tochoosecommunication media among men, women and youths in Mvomero and Kilosa Districts was not significant at p≤1.000. Hence, because of being mostly accessible; the radio is highly chosen by men, women and youths in the rural areas. The result is also supported by Lwoga *et al*. (2011) and Mtega (2018) studies that radio was the most chosen media in rural areas in Tanzania.However, there was no direct relationship of being a man (above 35 years), woman (above 35 years) and youth (from 18 years to 35 years) that could influence him/her to chooseeither television or video tape/DVDor mobile phones or Internet or leaflets or booklets over radio.

Table 4: Tests between-subjects effects: Accessibility of communication media to choose communication media *versus* the influence of gender categories (men, women and youths) to choose communication media

Source	Type III sum of squares	Df	Mean Square	p-value
Corrected model	5606.891[a]	10	560.689	0.072
Intercept	7151.431	1	7151.431	0.000
The influence of accessibility of communication media and choice for communication media	5606.887	7	934.481	0.016*
The influence of men, women and youths to choose communication media	0.005	3	0.001	1.000ns
Error	6535.607	24		
Total	19293.930	35		
Corrected Total	12142.499	34		
Corrected model	5606.891	10	560.689	0.072

[a] R Squared = 0.462 (Adjusted R-Squared = 0.237); *=statistically significant at p≤0.05; ns=not statistically significant at p≤0.05.

Source: Adapted and modified from Busindeli, I.M.(2016). Communication Media Preferences by Rural Communities for Acquiring Agricultural Information in Mvomero and Kilosa Districts, Morogoro, Tanzania.pp. 149.

3.3 The impact of socio-economic factors on influencing men, women and youth to choose communicationmedia

Soon after obtaining clues from the descriptive analysison quantitative variables, inferential analysis was undertaken to establish with an interest of identifying socio-economic factors such as age(AGE), gender(GENDER), education level(primary education-ELCM-PE, secondary education-ELCM-SE), asset ownership(ASS), marital status(MS), income level (INCOME) and type of farming enterprise(TFE)and their influences on men, women and youths decisions to chooseeither television or video tape/DVD or mobile phones or Internet or leaflets or booklets over radio. The results from multinomial regression model analysis are summarized in Table 5.

Table 5: Summarized estimated results of leaflets and television in the multinomial logistic regression model

Variables	Leaflets				Television			
	Co-efficient (β)	Standard error	Significance	Odd ratios(E(β)	Co-efficient (β)	Standard error	Significance	Odd ratios(E(β)
Intercept	-11.618	0.360	0.000	-	3.028	2.229	0.054	-
AGE	0.481	1.10	0.661 ^{ns}	-1.677	11.839	0.97	0.984 ^{ns}	1.386
GENDER	-0.485	1.72	0.777 ^{ns}	-3.849	-11.516	0.99	0.990 ^{ns}	6.789
ELCM-PE	16.051*	1.26	0.000	13.582	10.903	1.28	0.973 ^{ns}	5.432
ELCM-SE	18.908*	1.96	0.000	15.068	11.627	1.39	0.971 ^{ns}	1.121
ASS	-1.465	0.63	0.249 ^{ns}	11.870	0.499	0.63	0.775 ^{ns}	-2.926
MS	0.939	1.19	0.430 ^{ns}	-1.393	10.604	0.79	0.970 ^{ns}	6.705
INCOME	3.19e-08	1.49	0.645 ^{ns}	-1.04e-07	2.13e-07*	0.57	0.003	7.08e-08
TFE	-0.509	0.72	0.477 ^{ns}	-1.912	-0.524	0.59	0.592 ^{ns}	1.637

Radio: Reference choice category

Statistical significance: * statistically significant at p≤0.01 level; ^{ns} not statistically significant at p≤0.05.

Source: Adaptedand modified from from Busindeli, I.M. (2016). Communication Media Preferences by Rural Communities for Acquiring Agricultural Information in Mvomero and Kilosa Districts, Morogoro, Tanzania.pp. 93-94.

As summarized in Table 5, there is positive statistical significanceat 1% between education level of male, female or youth farmer in choosing leaflets over radio. A farmer is more inclined to choose leaflet over radio as his/her number of years in schooling increases from 13.58 years in primary school to 15.07 years in secondary education. On the other hand, level of incomehas a significant positive influence at 3% level of significance formale, female or youth farmer in choosing television over radio.That means, as the income of male, female or youth farmerincreases by 0.3% it increases his/her chances twice on choosing television rather than radio. In addition, as his/her income increases by 0.3%, he/she is able to meet approximately 2% of television total costs, that is buying and operation costs.This result deviates from Kilima*et al* (2016) who found that income influences farmers to choose mobile phones only. Also, the results contradict with that of Fawole (2008), Mwakaje (2010) and Nosheen *et al.*(2010) who found that income influenced positively different individuals in their choice of booklets, posters and leaflets.

From practical experience, the observation is logical. Given the nature of leaflet and television, a male, female or youth farmer who has spent more years in his academic journey, he/she is used to paper works and could have developed interest on written words. This motivates him/her to attach importance to leaflets, hence, this derives his/her interest to choose leaflets over radio. In addition, it is not possible for rural male, female or youth farmer with low-income to choosetelevision in accessing agricultural information as won't be able to meet buying sets/accessories and operations (that is, electricity and subscription feeson continuous basis) costs.Participants during Focus Group Discussions (FGDs) in Kilosa and Kilosa districts also agreed that poor farmers could not afford to own and operate television sets. The results imply that low-income male, female or youth farmers they always choose radio over television in accessing agricultural information.

4.0 CONCLUSIONS AND RECOMMENDATIONS

The study revealed that radio is the most accessible communication medium in rural areas due to its independence on electricity, portability and its uses for accessing information. Hence,

accessible to men, women and youths. However, there is likelihood for men (above 35 years, women (above 35 years) and youths (from 18 years to 35 years) in rural areas to choose leaflets and television over radio for acquisition of agricultural information as their education and income levels increase respectively. Therefore, the study recommends the Government's intervention on cost reduction of television and its accessories. In addition, the reduction subscription fees for pre-paid satellite decoders and electric charges. This will boost usage and accessibility of television to low-income earners in rural areas and improve timely access to appropriate agricultural information for increased production.

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