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ASSESSMENT OF THE EFFECT OF INFORMATION COMMUNICATION TECHNOLOGY (ICT) ON RICE MARKETING IN JALINGO LOCAL GOVERNMENT AREA OF TARABA STATE, NIGERIA

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Abstract:. This study assessed the effect of ICT on rice marketing in Jalingo Local Government Area of Taraba State, Nigeria. The specific objectives were to describe the socio-economic characteristics of the respondents, investigate the level of usage of ICT on rice marketing, determine impact of ICT on rice marketing and identify the constraints associated with the use of ICT in the study area. Primary data were collected from 100 respondents using purposive and simple random sampling techniques. Results were analyzed using descriptive and inferential statistics. The analysis revealed that, majority 67% were female, 54% were married and 68% attended one form of education or the other. Most (59%) of the respondents had a monthly income earnings of less than N20,000 per month. The result on level of usage of ICT showed that ICT help the marketers to know market days (3.0), know market where products can be sold (2.9), know the market to attend (3.0) know type of products to sell (2.55), and know different market location (2.8) while the cut-off point of the mean was (2.5), indicated that ICT have improved the knowledge of rice marketers on marketing information. The result of T-test analysis shows that the mean (x) of income and volume of sales (601) was higher after the use of ICT compared with the mean (x) of income and volume of sales (4.59) before the use of ICT facilities. This signified that ICT have positive effect on rice marketing in the study area. High call tariff, erratic power supply, fluctuation of service and no network coverage were the major constraints faced by the respondents. It was recommended that the National Communication Commission (NCC) as a regulatory body should ensure that GSM service providers act within the ambit of the law by not charging exorbitant tariff on consumers and tackle the problem of fluctuation of service and no network coverage. Government on the other hand should endeavour to tackle the problems of erratic power supply to facilitate the use of ICT tools for rice marketing information in the area.
Keywords: Assessment, Effect, ICTS, Rice and Marketing.

Introduction: The past decades had witnessed a revolution in the use of Information and Communication Technology (ICT) in developing countries like Nigeria. Many people and office as well as rural farmers own ICT facilities such as personal computers and mobile phones. The largest increases in the use of ICT have been the mobile telephones where subscriptions in developing countries increased from about 30 percent of

the world total in year 2000 to more than 50 percent in year 2004 and to almost 70 percent in year 2007 (Cieslikowk et al., 2009). Spore (1998), asserted that, the objectives of these unique information tools include the following: identifying sellers who are able to guarantee desired products and volumes and finding buyers without the sellers physically bringing the commodity up for the sale and a clearing house. The middlemen capitalized on the ignorance of the farmers and undue advantage buy most of the farm products at cheaper prices directly at the farm gate and later sell to final consumers at an exorbitant price (Agboola, 2003). Despite the revolution of ICT in sub-sahara Africa, do rice marketers have any better access to market information and what has been the impact on their income and trade volume? Therefore, this study intends to find out whether ICT has any effect in rice marketing in the study area. The specific objectives were to:

i. describe the socio-economic characteristics of rice marketers.

ii. investigate the level of usage of ICT by rice marketers

iii. determine the impact of ICT on rice marketing in the study area.

iv. identify the constraints associated with the use of ICT in rice marketing in the study area.

METHODOLOGY

The study area

Jalingo Local Government Area lies between longitude 11^0 09' and 11^0 30' East and between latitude 8^0 47' and 9^0 01' North. It shares common boundaries with Lau Local Government Area to the North, to East by Yorro Local Government Area and Ardo-kola Local Government Area. The study area occupies a land mass of approximately 195km2. It has a population of about 139,845 people (NPC, 2006). It holds the prime position of being the headquarters of the Muri Emirate Council and capital city of Taraba State. The study area has an annual rainfall of 1200mm with annual temperature of about 20°C-29°C. It is characterized by dry and rainy season common to tropical region. The ethnic groups of the study area are: Kona, Mumuye, Fulani, Jenjo and Yandang among others. Hausa language is the predominant language in the area as a medium of communication and little Fulani for social and economic interactions.

Sampling techniques

The rice marketers in the study area constituted the population for this study. Purposive and simple random sampling techniques were used to select five (5) markets which include; Jalingo main market, Mile six market, Yelwa market, Sabon Gari market and Mayo Gwoi market. Twenty (20) respondents were- randomly selected from each market to give a sample size of 100 respondents. The markets were purposively selected based on their prominence in rice marketing as well as where both wholesalers and retailers are found.

Method of data collection

Both primary and secondary sources of data collection were used for the study.

Method of data analysis

Descriptive statistics such as frequency, simple percentages and rating mean were used to analyze objectives i, ii & iv while inferential statistics such as paired T-test was used to analyze objective iii respectively.

Results and Discussion

Socio-economic characteristics of rice marketers

The result in Table 1 showed that majority (87%) of the respondents were youths between the age range of 20-40 and (13%) of the respondents fell in the age range of 51 and above. This implies that majority of the respondents were youths who are actively involved in marketing of rice. The result in table 1 also shows that about (67%) of the respondents were female and (33%) were male. This indicated that female were more involved in rice marketing than male in the study area. The result also indicated that (54%) were married,

(31%) were single and (15%) were divorced. The result therefore indicated that majority of the respondents were married. The result in table 1 shows that (24%) has household size less than 5, (48%) has household size less than 10 and (28%) has household size greater than 10. This revealed that majority of the rice marketers were using family members in their business operation and only few hired labour due to the size of their family. The result in table 1 shows that (20%) were primary school leavers, (28%) were secondary school leavers, (20%) attended 'A' level and (32%) did not attend any form of education at all. This indicates that majority (68%) of the respondents attended one form of education or the other. The result in table 1 also showed that (59%) got less than N20,000 as income, (20%) got between N20,000-N40,000 (11%) got between N40,000 -60,000 while (10%) got between N60,000 and above as income per month. This implied that majority (90%) of the respondents got below N60,000 per month.

The level of usage of ICT by rice marketers in the study area

The findings in table 2 shows that the mean (x) of (3.0) of the respondents indicate that they used ICT tools to know the market days, the mean (x) of (2.9) used it to know the market where the product can be sold, the mean (x) of (3.0) used it to know markets to attend, the mean (5) of (2.55) used it to know type of products to sell in the market, the mean (ii) of (2.8) used it to know different market location while the cut-off point mean (x) was (2.5). Since the mean (x) were greater than the cut-off point mean ($\bar{x}$), this implied that ICT tools have improved the respondents' knowledge on rice marketing information in the study area. These findings confirmed with that of Shiro (2008).

The impact of ICT on rice marketing in the study area

The result in Table 3, T-test analysis shows that the mean (x) of income and volume of sales (6.01) was higher after the used of ICT compared with the mean (x) of income and volume of sales (4.59) before the used of ICT facilities. This signifies that ICT have positive impact on rice marketing in the study area. The finding agreed with that of Aker (2008), who found out that ICTS has positive impact on agricultural income, reduced cost and increased efficiency.

The constraints on the used of ICT in the study area

The result presented in table 4 showed the constraints encountered by the rice marketers with the use of ICT in the study area which include: high call tariff (89%), erratic power supply (88%), fluctuation of service (80%), No network coverage (70%), high cost of maintenance (67%), repair of technical faults (60%), inadequate access to ICT tools (52%) and missed calls (50%). The finding contradicted with that of Cullen (2002), Rao (2003) and Jayathilake et al., (2008).

Conclusion and Recommendations

Based on the findings of this study, the result indicated that ICT facilities had improved the respondents' knowledge on rice marketing information, improved their income, volume of sales, good prices and improved standard of living. But the major constraints faced were, high call tariff, erratic power supply, fluctuation of service and no network coverage. Recommendations were made that; the National Communication Commission (NCC) as a regulatory body should ensure that the (GSM) service providers act within the ambit of the law by not charging exorbitant tariff on consumers, and also should tackle the problem of fluctuation of service and no network coverage. However, the government should as matter concern tackle the problems of erratic power supply to facilitate the use of ICT tools for rice marketing information in the study area.

Table 1: Socio-economic characteristic of rice marketers (n=100)

Variables	Frequency	Percentage (%)
Age (years)	27	27
20-29	29	29
30-39	31	31
40 – 49	13	13
50 and above		
Gender	33	33

Male	67	67
Female		
Marital Status	54	54
Married	31	31
Single	15	15
Divource		
Household Size	24	24
Below 5	48	48
6 – 10	28	28
11 and above		
Educational Level	20	20
Primary	28	28
Secondary	20	20
Tertiary	32	32
Non-formal education		
Income level (N) per month	59	59
Below N20,000	20	20
N20,000 – N40,000	11	11
N40,000 – N60,000	10	10
N60,000 and above		

Source: Field Survey, 2015.

Table 2: Means Rating the level of usage of ICT by Rice Marketers in the study Area

Variables	Total score	Mean (x)	Remarks
To know market days	300	3.0	S
To know market where products can be sold	290	2.9	S
To know market to attend	300	3.0	S
To know type of products to sell in the markets	255	2.55	S
To know different markets location	280	2.8	S

Source: Field Survey, 2015

NB: S = Satisfied

Table 3: Paired T-Test analysis to determine the impact of ICT on Rice marketing in the study Area.

Variables	N	$\bar{x}$	Ste $\bar{x}$	T-cal	T-tab	DF	Remarks
Income and volume of sell before	30	4.59					
			1.78	3.19	2.048	28	S*
Income and volume of sell after	30	60.1					

Source: Field survey, 2015

NB: S* = Significant

Table 4: Constraints Associated with the use of ICTs in the study area.

Variables	Frequency	Percentage (%)	Rank **
High call tariff	89	89	1
Erratic power supply	88	88	2
Fluctuating service	80	80	3
No Network service	70	70	4
High cost of maintenance	67	67	5

Repair of technical faults	60	60	6
Inadequate access to ICT tools	52	52	7
Missed information	50	50	8
Total	**556***	**556***	9

Source: Field Survey, 2015

Note:** Rank in descending order

Note: * Multiple responses

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