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Performance of Improved Agricultural Technology Information among Small Scale Alcohol Consuming Farmers in Madagali, Adamawa State, Nigeria

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Abstract
This study aimed at analysing the performance of improved agricultural technologies information among small scale alcohol consuming farmers of Madagali Local Government Area, Adamawa State. The study assessed the socio-economic characteristics of small scale alcohol consuming farmers of the study area, finding the effect of alcohol consumption and addiction on agricultural production and to analyse the adoption and effect of the performance of agricultural technology information among small scale alcohol consuming farmers. The frame of the study was based on the five (5) districts of Madagali Local Government Area where two (2) were purposively selected for the study. A random selection of one village per each of the two districts was done to pick up two villages for the study. Fifteen alcoholic farmers were purposively selected from each of the two villages to make up thirty (30) farmers for the study. Structured questionnaire and interview schedule was employed to gather primary data. Among the results obtained from this study, it was found that, most of the alcoholic consuming farmers were male between the age of 31-45 years and they are all farmers. They practice mixed farming system and obtain their agricultural technology information through ADPs. Their average alcohol consumption is above five bottles per day and spends more than five hundred naira everyday. The result of the findings also shows that, most of the improved agricultural technology information communicated were very effective and perceived modern storage, planting techniques, diseases and pests management, use of fertilizer etc as being effective, but adoption varies. The effects of alcohol on these farmers made them to have low adoption to modern agricultural technology information consequently led to low agricultural production in the study area. Hence, an orientation exercise should be organised intensively to make them be aware of the dangers associated with alcohol consumption on agricultural productivity and their health situations.
Key words: Agricultural Technology Information, Alcohol Consumption, Performance and Small Scale

INTRODUCTION

The Nigerian Economy operated basically as an agrarian economy with over 70% population actively engaged in farming at various levels. Most of farming activities are not mechanized, Ani, (2001) Crop productions system in the rural communities are predominantly labour intensive, with family labour (Men, Women and Children) accounting for larger proportion (Ani 2001). The distributions of labour among male and female sexes indicated that men are actively involved in labourious works such as land preparation, cutting down of trees, planting, weeding, harvesting and processing (Killer, 1982). In most rural communities in Adamawa State, agriculture is the most common employer of labour, with men and women actively involved in it as their source of income.

Agricultural technology has been defined as an ideas, methods or objects which are regarded as new by individuals (Rogers, 1995). Technology according to Swapson,(1996) is the application of knowledge for practical purpose which is used to improve the conditions of human, and its environment. Kaniki, (1999) defines agricultural information as ideas, facts, technologies, imaginative work of the mind and data value potentially useful in decision making process question answering and problem solving. These technologies are pivoted in rural transformation through high yields. Examples of these technologies includes improved seeds, use of agro chemicals, pest management, crop management, land use, fertilizer application methods, harvesting methods and storage. These technologies are communicated to farmers either through the Village Extension Agents (VEAs), friends and/or Ministry of Agriculture. Adoption of technologies by farmers depends on ranges of factors such as personal, socio-cultural and socio-economic (Fiegel,1984). In the process of adoption, some socio-cultural factors like alcoholic syndrome exist as a setback to agricultural production.

Alcohol is defined as beer, wine, and liquor drugs which increases the activities of motivational centres and decreases the activities of inhibitory centers in the central nervous system and providing a sense of energy and well being. Alcohol is a liquid drink that can make one drunk when taken in excess. Alcohol stimulates the consumer and makes him less inhibited, reduces tension and increases self confidence (Vandegriff and Simpson, 1996). In rural areas, alcohol is used for social occasions such as rituals, weddings, meetings etc. Alcohol consumption leads to increases in negative mood and even worsening the mood which has high tension which results to anger, weak job performance, disrupt marriages and harm ones health, through shortening one's life span by 12 years (Steele and Joseph, 1990). Shadock, (1995)on the other hand indicated that, an alcoholic person

is unable to control himself, losses appetite, expressed Insomnia and Vitamin B deficiency. All of these could translate to the lost of farm labour, and eventually poor agricultural productivity. Drinking pattern may be learned from those associated with, it is possible youths in farming communities might involve in drinking through peer group influence and age mates.

Agricultural production in the rural areas is labour intensive. Often farm activities are not mechanized. Labour is made available on the farm in form of family labour, hired labour, community assistance, etc. They could be a possibility that the farmer might have adopted an innovation but due to influence of alcohol he may continue or discontinue the use of such a technology. During the peak period of farming, death of farm labour is very common, hired labour becomes very expensive. The rural-urban drift in search of education, white collar job and social amenities has almost eroded the availability of farm labour in most farming communities. This situation is worsening by the falling interest of youths in taking farming as a source of livelihood. Some few farmers who are actively engaged in consumption of locally manufactured alcohol, become addicted to it. An alcoholic farmer may have challenges in recognition and adoption of agricultural technology information through his senses. He may form a different opinion concerning the Agricultural Technology Information passed to him by the VEAs .In furtherance, his thinking and feelings about agricultural technology information may be positive or negative. All this may affect his productivity positively or negatively. An understanding of agricultural technology information packages among alcohol consuming farmers could provide information which could be desirable in packaging agricultural technology information for alcohol consuming farmers.

The broad objective of this study is to analyse the performance of agricultural technology information among alcohol consuming Farmers. The specific objectives are:

- to assess the socio-economic characteristics of alcohol consuming farmers of the study area,
- to find out the effect of alcoholic consumption and addiction on agricultural production in the study area and
- to analyse adoption and effects of the performance of agricultural technology information among the alcohol consuming farmers.

Methodology

This Study was carried out in Madagali Local Government Area of Adamawa .The Local Government is located in the Northern part of Adamawa State. Madagali Local Government is located between longitude $13^{0}15^{1}$ East of Green Meridian and Latitude 10^{0} 30^{1} Northern of the Equator. It is bordered by Borno State to the North, Cameroun Republic to the East, Michika Local Government to the South and Askira/Uba Local Government area to West. Majority of the population are farmers who produce varieties of agricultural products. Prominent among them are; Sorghum, Maize, Groundnuts, Cowpea, Rice, Sugarcane, sweet potato and vegetables as well as tree crops of various species and types (Giwa, 2006). livestocks are also reared in the study area which includes, Cattle, Sheep, Goat, Rabbits, Poultry, Pigs etc.

The study was carried out among alcohol consuming farmers of Madagali Local Government Area of Adamawa State. Out of the five districts of the Local Government two were purposively selected namely Madagali and Sukur because of their high population rate of production and consumption of locally produce alcohol. Within the two districts, a village is randomly selected from each hence two villages were used for the study. Purposive sampling was also employed to select 15 alcohol consuming farmers from each of the two villages; therefore, 30 farmers were used for the study.

Both primary data and secondary data were used for this study, primary data were collected through a pretest questionnaire which was administered to the respondents while secondary data were obtained from the Local Government offices documents, books, journals etc.

Data collected were analysed through descriptive statistics such as frequency and percentages. Likert scaling Chi-Square on was used to determine the effectiveness of agricultural technology information on agricultural production of these respondents.

RESULT AND DISCUSSIUON

Result in table 1 revealed that majority (47%) of the responding alcohol consuming farmers were within the age range of 31-45 years, this age range happened to be the most active age group on agricultural production of the area. Those within the age of 15-30 years were 4% while an age range of 45 -60 years were 10%.

From the survey, result shown on same table indicates that majority (73%) of the respondents were male while 27% are female. The Likert scaling chi square goodness of fit test for the distribution was significant, (table1) at 1% level of probability.

The marital status of the respondents based on the survey had revealed that majority of the respondents (73%) were married with 2-5member per household, while 20% were single. The Likert scaling Chi-square test for the distribution is significant at 1% level of probability.

The occupational distributions of the respondents revealed that majority (95%) of the respondents were

mainly engaged in farming. The Likert scaling chi square test of the distribution is also significant at 1% level of probability. This implies that, the population of the villages was mostly farmers engaged in the production of various crops and animals.

Table 1: Socio-Economic Characteristics

Age (Years)	**Frequency**	**Percentage**	df	Chi-Square	Pob>Chi
15-30	12	40			
31-45	14	47			
46-60	3	10			
61 and Above	1	3			
Total	**30**	**100**			
Sex					
Male	22	73	1	7.3	0.01**
Female	8	27			
Total	**30**	**100**			
Marrital Status					
Single	6	20	2	22.40	0.01**
Married	22	73			
Divorced	2	7			
Total	30	100			
House hold size					
Less than2	10	33			
2-5	13	43			
above 5	7	24			
Total	13	100			
Occupational Distribution					
Farming	28	93	1	22.533	0.01**
Other trades	2	7			
Total	**30**	**100**			

Source: field Survey, 2007

Table 2 below shows the types of farming found in the study area .The result showed that, mixed farming (Livestock and Crops) was common among them (67%) as compared with sole crop production (30%) and animal farming (3%).The Likert scaling Chi-square goodness of fit test is significant at 1% level of probability. This result therefore implies that, farmers of the study area mostly practices mixed farming that is rearing animals and producing crops which is their major practices year in year out.

Table2: Types of Farming

Variable	Frequency	Percentage	df	Chi-Square	Pob>Chi
Crop Farming	9	30.0	2	18.200	0.01**
Livestock Farming	1	3			
Mixed Farming	20	67			

Source: Field Survey 2007

Sources of Agricultural Technology information

Table 3 below showed the sources of agricultural technology information available to the respondents. From the result, it is clearly indicated that, Agricultural Development Programmes (ADPs) is the chief source of agricultural information to the farmers, this accounted for 57% of the respondents. Friends accounted 30% while Ministry of Agriculture accounted for 13%. The Likert scaling Chi-square test of fit for the distribution is significant at 1% level of probability. This tells us that, ADP plays a major role in disseminating of modern agricultural technologies to the rural farmers of the study area.

Table 3: Sources of Agricultural Information Information

Source	Frequency	Percentage	df	Chi-Squsare	Prob>Chi
ADPs	17	57	2	8.600	0.014***
Min.Agric	4	13			
Friends	9	20			

Source: Field Survey, 2007

Table 4 below also showed that all the respondents take alcohol, and theirvarying quantity per individuals 65% were indicated to be mostly those who took over five bottles per day, while 6% used to two bottles, and 3% just takes a bottle per day. The Likert scaling Chi-square goodness of fit test for the distribution is significant at 5% level of probability. This tells us that, these farmers takes and spend a lot on alcohol each day and consequently leads them being over drunk on daily basis. By implication, this result also explains that, agricultural production capacity of those farmers is below the reality, hence, leads to negative effect on production.

Table 4: Quantity of Alcohol consumed

Variable	Frequency	Percentage	df	Chi-Squsare	Prob>Chi
1Bottle/day	1	3	3	10.667	0.03*
2 Bottles/day	2	6			
3Bottles/day	4	13			
4 Bottles/day	4	13			
>5 Bottles/day	19	65			

Source: Field Survey, 2007

Table 5 below indicates their spending on alcohol per day. The result shows that, majority of them spend above N500 daily. The result also reveals that, most of these farmers spend more of their income on alcohol more than their farms and families.

Table 5: Amount Spent on buying alcohol

Variable	Frequency	Percentage	df	Chi-Squsare	Prob>Chi
#150	2	6	4	14.33	0.01**
#250	2	6			
#350	3	9			
#450	5	18			
#500	18	54			

Source: Field Survey, 2007

The perception of agricultural technology information by alcohol consuming farmers using Likert scaling test is shown in table 6 below. The result showed that, most of the farm technologies communicated to them was very effective with a mean greater than 2.50. Modern storage, planting technology, diseases management and use of fertilizer among others are perceived to be very effective by the farmers but adoption differs. This implies that, all the modern agricultural technical information that reached the alcoholic farmers were adequately perceived and understood but due to the influence of alcohol on them there was low adoption. Hence, alcohol consumption influences a high level of negative adoption which led to low agricultural production.

Table 6: Perception and Adoption of agricultural technology Information by the alcohol consuming farmers

Technology	Very Effective	Effective	Ineffective	Very ineffective	Means
Mechanised land Preparation	2.93	0.3	0.4	0.02	3.65
Improved seeds	2.53	0.85	0.17	0.00	3.55
Planting technology	1.40	0.80	0.75	0.02	3.97
Modern Storage	2.60	0.8	0.72	0.02	4.14
Modern processing	1.00	0.73	0.87	0.13	2.73
Fruits processing	0.96	0.50	1.17	0.13	1.65
Disease management	3.07	0.40	0.20	0.02	3.67
Use of fertilizer	2.87	0.55	0.20	0.00	3.62
Cultural practices	2.20	0.75	0.10	0.07	3.05
Intercropping	2.37	0.35	0.13	0.00	2.75
Marketing	1.73	1.50	0.13	0.00	2.36
Adoption	0.02	0.13	0.76	2.87	3.87

Source: Field Survey, 2007

Conclusion

This study concludes that, majority of the alcohol consumed by the respondents, practice mixed farming system and obtained modern agricultural technology information from the ADPs. They are low income earners spending not less than five hundred naira per day on alcohol consumption. Most of the modern agricultural technology information given to the farmers are very effective especially in the areas of modern storage, chemical usage, improved seeds acceptance and others, but adoption varies among them. The result of this study shows that, alcohol consumption has negative influence on the adoption of modern agricultural technology information and hence affects their agricultural production.

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