Full Length Research

A case Study on Poultry Marketing and Trade in Juba County, South Sudan

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A ten-week study was conducted in Juba County to determine the driving forces of marketing and trade of poultry products. 36 respondents were interviewed using semi-structure questionnaires. Data and information were obtained from both primary and secondary sources and Descriptive analysis was presented .Results showed that poultry product traders include different age group and both sexes; 63.88% females and 36.11% males. Women and children are solely responsible for poultry keeping at household with 38.89% and 33.33% respectively. Capital acquisitions from personal saving 52.78% and borrowed from friends 47.22%. The potential buyers are Hotel and Restaurant firms 61.11%, individual consumers 25%, and other buyers 13.89%. The consumers' preferences wereIndbro Fast Broiler 6%, Ross 308 Broiler 22%, Indbro Rainbow Roaster from Uganda 42% and other local breeds produced in Juba County 30%. The consumption pattern of frozen chicken accounted for 72%, Indbro Rainbow Roaster from Uganda 17% and other local breeds produced in Juba County 11%. The supply of poultry differs from one market to another. Poultry keeping helps women supplement home economy which provides an economic empowerment and self-reliance.

Key words: Poultry Marketing, Poultry Products, Broilers, Layers, Consumption patterns,

INTRODUCTION

South Sudan is endowed with poultry birds estimated to be 5.6 million in 2006. These birds are primarily of small scale subsistence industry which is dependent on a day old chicks and feed imported from Sudan, Kenya and Uganda. Yet the consumers demand for poultry products in urban centers are increasing which led to imported poultry products from Brazil, China, Lebanon and Dubai (MARF, 2014). Poultry production and trade have increased rapidly for the last two decades worldwide which led to expansion of market demand (Aboe *et al.*, 2006). Developing countries consumers have responded to the availability of poultry products both in local market and in urban

food stores. Hence, poultry products afford a source of animal proteins to supplement a diet of vegetable, starches such as cereals, bean and root crops (Thomsen *et al.*, 2005).

Evidence shows that the share of poultry in total meat consumption has risen from 20% to 29% in 1985 and nowadays it exceeds that of beef (Djurdjevic et al., 2005). Poultry meat is traded as poultry parts rather than that of whole birds and is generally frozen, though most poultry meat trade is in broilers and broilers meat (Rushton and Ngongi, 1999). Poultry keeping is practiced in developing countries by almost all resource poor and disadvantaged groups including

women, children, youth and pastoralists to keep poultry to improve their livelihoods (FAO, 2009).

In Juba County, a few studies have been conducted to identify the driving forces for poultry production. However much efforts have been exerted by local poultry farmers to boost local production despite the challenges of feedstuff (SMARF,2011). Considerable progress was made during the period 2007 to2011 and more than 30 peri-urban poultry farms were established after the poultry demonstration farm by SMARF (2011).

This study was aimed to assess the status of poultry products marketing and trade, consumption patterns to determine the factors influencing rapid growth of poultry. This is intended to provide baseline data for key stakeholders including poultry traders and investors in Juba county South Sudan.

MATERIALS AND METHODS

Study Area

This study was conducted in three Payams of Juba County Jubek State South Sudan .These include Rejaf, Kator and Munuki Payams. The County is endowed with agribusiness where commercial activities vigorously progress to meet the significant increase of the population. Juba County covers an area of about 32,175 Sq.km and a population of 372,413 people (Census, 2008). Juba County is located at latitude 4 510N and longitude 31 368E with an elevation of 550m.

Study Design

A ten week study covered indigenous Baladi and exotic Indbro Fast Broiler, Ross 308 Broiler and Indbro Rainbow Roaster from Uganda. The first four weeks was occupied with frequent visit to different markets selected in Juba County, the second four weeks were used visiting key Ministries and various companies/institutions involved in poultry marketing and lastly, the two weeks were used for collecting all the remaining questionnaires from various respondents.

Interviews

Interviews were conducted face to face with different individuals in those selected markets in the Payams of Rejaf, Kator and Munuki.

Questionnaires

In this method, a list of questions was printed in which spaces were provided for the answers. Questionnaires were given to different respondents to fill in as demanded.

Secondary Data

Data were obtained through extensive literature review from several journals which required identifying and collecting relevant data from journal articles, online books chapters, theses and reports so as to evaluate them critically analyzed and synthesize using the scientific search engine.

Descriptive Analysis

The data for this research was analyzed by calculating the data obtained in percentage as presented in different pie charts and complex multiple bar charts.

RESULTS AND DISCUSSIONS

Results

From table 1, the sex of traders involved in the poultry marketing activity i.e. female and male with 63.88% and 36.11% respectively. RajafPayam male is 13.89 percent and is greater than that the males' counterpart female is 19.44 percent; Kator and MunukiPayam the percentage of traders has equalized with male 11.11 percent and female is 22.22 percent.

Item	Particular	RajafPayam	KatorPayam	MunukiPayam	Overall Percentage
		%	%	%	%
Sex	Male	13.89	11.11	11.11	36.11
	Female	19.44	22.22	22.22	63.88
Age group	Less than 20 years	5.56	8.33	2.78	16.67
	21 to 30 years	16.67	11.11	19.44	47.22
	31 to 40 years	8.33	5.56	5.56	19.45
	41 years & above	2.75	8.33	5.56	16.67
Years at trading	Less than 1 year	19.44	5.56	16.67	41.67
ŭ	2 to 4 years	11.11	22.22	11.11	44.44
	4 years and above	2.78	5.56	5.56	13.90
Capital	Loans from bank	0.00	0.00	0.00	0.00
Acquisition					
•	Personal Saving	13.89	16.67	22.22	52.78
	Borrowed from Friends	19.44	16.67	11.11	47.22
Potential buyers	Hotel and Restaurants	25.00	16.67	19.44	61.11
	Individual consumers	8.33	11.11	5.56	25.00
	Other buyers	2.78	9.33	2.78	13.89

From table 2, the sex of traders involved in the poultry marketing activity i.e. female and male with 63.88% and 36.11% respectively. RajafPayam male is 13.89 percent and is greater than that the males' counterpart female is 19.44 percent; Kator and MunukiPayam the percentage of traders has equalized with male 11.11 percent and female is 22.22 percent. The traders are categorized into different age grouping i.e. those 21-30 years old is the highest with 47.22 percent, followed by those of age 30-40 years old which has 19.45 percent and those less than 20 years old and those 41 years and above shared a similar percentage of 16.67 percent.

The year that the traders have been involved in the poultry marketing in Juba County vary from one individual trader to another. According to the finding of this research, I have obtained the following base on the number of years they have participated in marketing of poultry which is expressed in percentage. The traders who have been participating for less than one years is

41.67 percent, those who have been in poultry marketing for two to four years is the highest with 44.44 percent and those who have been for four years and above in poultry marketing has 13.90 percent which is least percent of involvement in the marketing of poultry.

The capital acquisition for starting this poultry marketing differs from one trader to another. According to the trader none of them got loan for starting their business, the majority of these traders acquired their capital for starting business through personal which is the highest with 52.78 percent and those who borrowed from the friends 47.22 percent. The buyers of these poultry products are categorized into three main sections, the hotels and restaurants which has the highest percentage of 61.11 percent, followed by the individual consumers at the household level which is 25.00 percent and the lowest is other buyers which is only 13.89 percent.

Table 2: Ownership and Responsibility for Poultry at household level in Rejaf, Kator and MunukiPayamsof Juba County.

Demographics	RajafPayam (%)	KatorPayam (%)	MunukiPayam	Overall (%)
Father	0.00	2.78	0.00	2.78
Mother	11.11	11.11	16.67	38.89
Children	11.11	13.89	8.33	33.33
Mother & Children	2.78	0.00	2.78	5.56
Children & Mother	5.56	5.56	5.56	16.68

Source; Field Data January 2015.

From table,3, the mothers (women) and children are the ones who are solely responsible for keeping the poultry birds at household level where the mothers (women) obtained 38.89 Mother (women) &

Father is 5.56 percent, the least scored is the father and combination of Father & Children with 2.78 percent.

Table 3: Countries importing poultry and its products, the potential importer and poultry products in Juba County.

Countries	Potential Importer	The Products
Uganda	Ugandan	Live poultry birds, fresh eggs
Brazil	Eritreans, Ethiopians, Arabs	Frozen chicken carcasses
Dubai, Lebanon, China	Eritreans, Ethiopians, Arabs	

There are different countries involved in the importation of poultry which are supply to different market segments in Juba City, as illustrated in the table Uganda imports mainly poultry birds and fresh eggs, Brazil, Dubai, Lebanon and China imports frozen chicken carcasses. The potential importers are Ugandan Eritreans, Ethiopian and Arabs. The highest with 40.13 percent, followed by Gu'dele market which is 23.08 percent, Nyokuron market is 21.07 percent and the least supply in Konyokonyo market which is 15.72 percent of quantity supplies.

Supply of frozen chicken carcasses also varies from a market to a market in quantity supplies for sale to the potential consumers who are sometime termed as their potential customers. The supply of frozen chicken is the highest in Gu'dele market with 35.19 percent, followed by Nyokuron market is 25.93 percent, Konyokonyo market is 23.15 percent and the lowest is Gumbo market is 15.74 percent. The supply of fresh eggs in the selected above varies slightly with little differences in the percentage of quantity supplied into those fours selected market segments above Gumbo market snsNyokuron market has 26.97 percent, followed by Konyokonyo market has 25.84 percent, and the least supply is received by Gu'dele market which is 20.22 percent.

DISCUSSIONS

In table 2 the traders considerably, perceived the poultry marketing activity as their source of livelihood that would enable them to address their basic needs. This is in line with Gueye (2003b) and Riise et al,(2007) who stated that the traders benefit livelihoods and food security by providing more secure and valuable saving and insurance to bolster against in Senegal, as well as a source of meal for consumption. The activity allows the potential traders to build up their

resource base, as the poultry marketing activity is considered to be the most important means of reducing vulnerability as stated by Akililu et al., (2007b) in Ethiopia while as the traders in Juba County takes activity as source of incomes' generation. However, the motivation of the individual trader to poultry marketing activity lies on individual interest as mentioned Mapiuve and Siband by 2005: FAO/IAEA,2002 which is also a similar case for those in Juba County. These traders of different age grouping are engaged in the poultry marketing activity for several reasons known best to them as it was mentioned by Thomsen (2005) whereas the traders in Juba County are engaged in the activity due to their personal needs which may either be categorized economically or socially basing on individual trader interest for the business. The poultry marketing activity support livelihoods and helps mitigate malnutrition incidences among the potential consumers. But, are likely to significantly contribute to poverty reduction and economic growth as stated by Goi (2008) which is always similar to the case in Juba City, poultry marketing system appears to be the most promising option of promoting a pro-poor development of the poultry sector as line to what was mentioned by Goi (2008) in India new Delhi. The people are always involved in poultry marketing activity in many parts of the world with the same motives as explained above.

In Table 3. The women and children are solely responsible for poultry keeping at household level with 38.89% and 33.33% respectively. The women's engagement in the poultry keeping help to subsides home budget as it allows them to avoid over dependent on their husbands as it was mentioned by Bronohoit, (2000) and Jeonsen (2002) which are always similar case to as why our women are so much engaged into the activity. Alternatively, the poultry keeping may also help the parents to pay school fees for their children, women smallholders of different ages

keep poultry differently with different reasons; this has got nothings to do with social position and stage in life as stated by Jeonsen (2002). Perhaps women and children in Juba County keeps poultry birds at home state for the reasons that it would help to diversified home economy which creates an alternative source of income generating activity to the family. This in line with Rushton and Ngongi (1999) who stated that the women smallholder poultry production remains supplementary to the household economy and small in absolute terms, it is often described as farmers' "petty cash" which is also similar reasons to why our women are involved in poultry keeping. However, even if it remains inferior to other income generating activities, poultry is linked to the fact that many of these women have few other activities for income generation.

Marketing are within reach, the prices obtained are higher than those offered by the intermediaries who come to the village to buy poultry birds. At times the price at the market can be twice that paid by the intermediaries as it mentioned by Thomsen, 2005; Riise et al., 2007 in Senegal which is also the same for the case of women of Juba County. The women who takes part in the development programs that offer access to microcredit, poultry income may be used for monthly repayment of loan, or investing in other income generating activities such as petty commerce or agriculture as stated by Aboe et al(2006) in Accra plains, Ghana; which may also be applied to the women engaged in poultry keeping in Juba County. although some larger the portion of women who are involved in poultry keeping in Juba City do not have access to microcredit support, income obtainable from the activity may be used other things such as payment of school fees for their children's, house rent, buying all their necessities.

In Table 4, the growth of various market segment and fast food retail outlets has had a major impact on poultry sales of poultry products in Juba County. The pricing factor which has been fairly declining relative to red meats has stimulated a further expansion of poultry market demand, taste also have shifted overtime as health fears have contributed to a switch away from red meats to poultry meat as mentioned by Joensen (2002) in Vietnam. The growth of poultry markets in Juba was as a result of high population growth rates which is coupled with high influx of foreigners (immigrants) in the county, as the poultry products are needed to supply the large population with cheap source of animal proteins. These poultry markets and fast food retail outlets has created easy access to abundant cheap source of animal proteins in easy reach to it's the potential consumer, as they are able get to all their essential nutrients needed for the healthy growth and there would be drastic reduction in ma nutrition cases among

consumers. The poultry marketing activity plays a significant role in the well-being of those people who are engaged in the activity, this activity could contribute to and derive benefit from growth of the poultry subsector through three major avenues either directly or indirectly as stated by Gueye(2003b). Through enhanced productivity and returns to the sub-sector or indirectly through employment along the poultry value chains.

Through benefiting from greater availability and affordability of animal proteins. Despite fact that the poultry marketing activity creates alternative source of employment to the potential traders, it has help to diversified economy of the producing countries as it creates alternative source of revenue as stated previously (Gueye, 2003b).

Juba County differs from one individual to another, as presented in Figure 1, the following were obtained, Exotic breed of poultry 6%, crossbreeds of poultry 22% imported live poultry birds from Uganda 42%, and other local breeds of poultry in Juba county 30%. Preference for a particular breed of poultry bird depend on individual previous taste for that breed of poultry birds consumers are interested in good tasting and health food, therefore the decide to pay a breed with special "content and they are willing to pay more money for itas stated by World Bank, (2005). Consumers' preference for particular of poultry depend upon the individual interest which is a similar case to interest consumers in Juba County.

It is noteworthy to say consumption pattern for different types of poultry products vary with their availability and affordability in market places. Figure 2, the following were obtained other breeds of poultry in Juba County 11%, imported live poultry from Uganda 17% and frozen chicken carcasses 72%. Thus, greater availability and affordability of a product in market place offers it a higher consumption as compared to those that are in limited supply and not affordable to its potential consumers. For instance the frozen chicken carcasses are cheaply sold at an average of 35 South Sudan Pounds per chicken carcass and they are readily available in local market ranks the highest with 72% compared to those breeds like imported live poultry birds and other breeds produced locally in Juba scored lowest County which percentage consumption pattern 17% and 11% respectively. Those breeds that are in limited supply (not readily available) and not affordable are always lower in consumption pattern as compared to those readily available and affordable to the potential consumers as mentioned by Goi, (2008) in India New Delhi which is a similar case in the County. Furthermore, the consumption for chicken is increasingly higher in Juba County as compared to the last five past year, chicken is rich with cheap source of animal proteins as well as

micronutrients needed for body growth, its helps to improve health and it may also help reduce the risk of metabolic disease as stated by World Bank (2005). The consumption of the poultry products in Juba County is much less than other regions in the world, in the extent to which they are consumed due to the differences in pattern of income per capita and the level of production while as the poultry production in Juba city are mainly for subsistence used only.

In Figure 3, both the demand and supply side factors are solely responsible for the growth of poultry marketing activity in Juba County. The driving forces controlling are income growth pattern of the population and urbanization, advances in production and processing technology and improvement along the supply chain. Supply factor have reinforced this expansion in demand of poultry products relatively stable and affordable to its potential consumers as mentioned by Joensen(2002) in Vietnam which is also similar case in Juba County markets of the selected Payams.

CONCLUSION

The consumption pattern of poultry products varies from the product to another with frozen chicken carcasses imported from abroad having the highest consumption pattern in comparison to both imported live poultry from Uganda and other poultry birds produced in Juba County, most of these poultry products consumed in Juba County are imported. In fact poultry keeping helps women to supplement home economy which in turns make them to be economically independent from their husbands as they are able to acquire most of their necessities.

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CONFLICT OF INTEREST

The authors declare that they have no conflict of interest

REFERENCES

Aboe, PAT, Boa-Amponsen K. Okantah, Dorward, P.T & Bryant, M.J (2006). Free range village chickens on the Accra Plain, Ghana: Their contribution to households. Trop. Anim. Health. Prod., 38 pp 223-234.

- Aklilu, H.A., Udo, H.M.J, Almekinders, C.J.M., & van der Zijpp, A.J. (2007). How resource poor households value and access poultry; village poultry keeping in Tigray, Ethiopia. In H.A. Aklilu, Village Poultry in Ethiopia. Sociotechnical analysis and learning with farmers. Wageningen University, Wageningen, the Netherlands (PhD thesis).
- Balde, D (2005). Marketing strategy in Senegal. Paper presented at workshop "Does poultry reduce poverty? A need for rethinking the approaches" held in Copenhagen, 30-31 August 2005. Copenhagen, Network for smallholder poultry Development.
- Brorholt, G. (2000). Kvinderne med honsene. Insistute of Anthropology, University of Vopenhangen. (MA thesis).
- Djurdjevic N, Sheu, and YH Hsieh (2005). Quantitative of poultry in cooked meat products. Journal of food science 70 (9); pp 586-593.
- FAO, (2009). Poultry Policies. Legislation and Strategies in Uganda. By Rose M. Azuba, Denis K. Byarugaba and Nicoline de Haan.
- FAO/IAEA, (2002). Poultry studies and anthropological research strategies, by M. Whyte; In Characteristics and parameters of family poultry production in Africa pp.187-192.
- GOI, (2005) Draft National Poultry Policy. Department of Animal Husbandry, and Dairying.
- Gol, (2008), Household consumer expenditure in India (2007) 07 NSS 63rd Round Government of India New Delhi.
- Gueye, E.F. (2000). The role of family poultry in poverty alleviation, food security and the promotion of gender equality in rural Africa. Outlook on Agriculture, 29(2) 129-136(8).
- Gueye, E.F. (2003b). Poverty alleviation, food security and the well-being of the human population through family poultry in low-income food-deficit countries. Journal of Food, Agriculture & Environment, 1(2): 12-21.
- Joensen, L. (2002). Intra-household decision-making and livestock investment patterns in Thanh Hoa Province, Vietnam. Department of Economics and Natural Resources, The Royal Veterinary and Agricultural University, Copenhagen (MSc thesis in Agricultural Economics).
- Mapiye, C. &Sibanda, S. (2005) Constraints and opportunities of village chicken production systems in the smallholder sector rushing a district of Zimbabwe. Livestock Research for Rural Development 17(10).
- MAR&F, (2014). Poultry protection and Processing Extension Project. Investment Planning Space and Profile pp 2-134.

- Marstrand, D.M., Hansen, H.H., Madsen, Mcalinsh, C.V., Larsen C.E.S., Kimambo,AA.E., Laswai, G.H., mgheni, D.M. &Pereka, A.E.(1996). Livestock banking in Africa the tragedy of the commons and/or blessing for the poor? In Proceedings of the 31st Scientific Conference, held Morogoro, Tanzania Society of Animal Production.
- McNamara A.M. (1997). Generic HACCP application in broiler slaughter and processing Journal of food protection 60(5); pp 579-604.
- Parkhurt CR, and GJ Mountney. (1988). Poultry meat and Eggs production. Van NostrandReinhold;pp 60-68.
- Riise, J.C., Bonkoungou, G. & Thomsen, K.A. (2007). Revue imi-parcours du projet de reduction de pauvreteen milieu rural (PRPMR) executeparl' AAJAC/COLUFIFA en collaboration avec Cvklertil Senegal. Copenhagen smallholder Network for Development.

- Rushton, J. &Ngongi, S.N (1999). Poultry, Women and development: old ideas new applications and the need for more research. World Animal Review, 91(2); pp 43-49.
- SMAR&F/CES, (2911). Poultry Improvement Project Peri urban Poultry Project.
- Thomsen. K.A., Chrysostome, C.&Houndonougbo, F.M. (2005). Strategies for income generation and marketing within the local context of smallholder poultry production and micro credits in Benin. Paper presented at the workshop "Does poultry reduce poverty and assure food security? Denmark, 30-31 August 2005.
- World Bank (2005) India's Undernourished Children: A Call for Reform and Action World Bank Washington D.C.