

A Case Study of Poultry Marketing and Trade in Juba County Central Equatoria State, South Sudan

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Abstract

Poultry marketing and trade is a lucrative business practised in small and large-scale sectors worldwide. A 10-week case study was conducted in Juba County to identify the driving forces of marketing and trade on poultry products. Key Informants' Interviews (KIIs) using semi-structure questionnaire to 136 respondents, observations and desk review were made. Descriptive statistical analysis and Statistical Package for Social Sciences (SPSS) were used. Quantitative gender analysis revealed that females were the majority (63.88%) in poultry marketing and trade compared to males (36.11%). Ostensibly, women (38.89%) and children (33.33%) were responsible for poultry keeping at household level. Capital acquisitions were derived from personal saving (52.78%) and loaning from friends (47.22%). Hotel and restaurant firms (61.11%), and individual consumers (25%) represented potential buyers compared to other buyers (13.89%). Ranking of consumers' preferences revealed a higher rate in Indbro Rainbow Roaster imported from Uganda (42%) compared to indigenous breeds in Juba County (30%), and the other imported Ross 308 Broiler (22%) and Indbro Fast Broiler (6%) breeds. The consumption pattern of frozen chicken accounted higher for Indbro Rainbow Roaster (72%) compared to Ross 308 Broiler (17%) and other local breeds of Juba County (11%). Supply and demand of frozen chicken carcasses and fresh eggs differed from one market to another. Poultry keeping, marketing and trade help women supplement home economy which provides an economic empowerment and self-reliance. Microfinance system is highly needed to enhance women entrepreneurship in Juba County, Central Equatoria State, South Sudan.

Keywords: Poultry marketing, Traders, Poultry products, Consumption patterns, South Sudan

1. Introduction

Poultry business is increasingly lucrative for small and large-scale sectors to meet the expansion of market demand worldwide [1]. In developing countries, poultry keeping is practised by almost the poor and disadvantaged groups of women, children, youth and pastoralists to improve their livelihoods and reduce poverty during the rural-urban transformation [2]. In Africa including Zimbabwe traditional poultry production system is widespread [3]. In South Sudan poultry birds are primarily of small-scale subsistence industry; and the traders are usually dependent on one-day old chicks and feeds imported from the neighbouring Sudan, Kenya and Uganda [4]. Yet the consumers' demands for poultry products in urban centers including Juba County have increased dramatically culminating in the importation of poultry products from Brazil, China, Lebanon and Dubai. Not surprisingly, eggs play a pivotal role in human diet and nutrition worldwide [5]. Such poultry products afford a source of animal protein to supplement a diet of vegetable, starches and root crops [6]. Consequently, poultry production and trade have increased rapidly for the past two decades worldwide prompting consumers in developing countries to respond to the availability and accessibility of poultry products both in local markets and in urban food stores. Evidence shows that a share of poultry in total meat consumption has risen from 20% to 29% in 1985 and nowadays it exceeds that of beef [7]. Poultry meat is traded

as poultry parts rather than the whole birds and is generally frozen, though most poultry meat trade is in live broilers and broilers' meat [8]. In Juba County, a few studies have been conducted to identify the driving forces for poultry production. Much efforts have been made to enhance local production as of 2007- 2011 in which more than 30 peri-urban poultry units were created as poultry demonstration farms [9]. The purpose of this study was to identify the driving forces of marketing and trade of poultry products as well as the consumption patterns to provide baseline data for key stakeholders and investors in Juba County Central Equatoria State (CES), South Sudan.

2. Materials and Methods

2.1 Study Area

This case study was conducted in three Payams of Juba County, CES, South Sudan: Rejaf, Kator and Munuki Payams. The County is endowed with agribusiness where progress has been vigorously made in commercial poultry activities to meet the significant increase of human population in Juba County.

2.2 Study Birds

Study birds include indigenous Baladi poultry breed and exotic Indbro Fast Broiler, Ross 308 Broiler and Indbro Rainbow Roaster breeds imported from Uganda.

2.3 Sample Size and Study Design

A sample size of 136 respondents was used for a 10- week study which covered a 4-week observation and inspection of different markets and key stakeholders of poultry products in the study area; a 4-week and a 2-week for administration and collection of questionnaires, respectively.

2.4 Methods of data collection

Key Informants’ Interviews (KIIs) using random administration of semi-structured questionnaires. Review desk from relevant journals, online book- chapters, theses and reports were consulted. Demographic variables (age group, sex), and experience in poultry business, capital acquisition and potential buyers (consumers) were incorporated.

2.5 Data Management and Statistical Analysis

The data were coded and entered into Statistical Package for Social Sciences (SPSS) for descriptive statistical method and Excel soft wares.

2.6 Ethical Considerations

Consents of respondents were obtained prior to the commencement of questionnaires administration and data collection.

3. Results

Table 1 shows poultry trade and marketing at Rejaf, Kator and Munuki Payams, Juba County CES, in which women empowerment and responsibility revealed 63.88 %. The potential age group (21 - 30 years old) of traders was higher (47.22%) compared to other age groups. Poultry traders experiencing the business for 2-4 years were the highest (44.44 %) compared to ≥4 years who remained the least (13.9 %) involved in poultry marketing. The majority of traders (52.78 %) acquiring capital through personal savings compared to those loaning from friends (47.22 %). Buyers of poultry products were significantly high in hotels and restaurants (61.11%) compared to individuals (25%) and other buyers/ consumers (13.89 %).

Table 1: Poultry marketing and trade in Rejaf, Kator and Munuki Payams of Juba County, Central Equatoria State, South Sudan.

Variables	Category	Payam (%)			Overall (%)
		Rejaf	Kator	Munuki	
Sex	Male	13.89	11.11	11.11	36.11
	Female	19.44	22.22	22.22	63.88
Age Group (in years)	< 20	5.56	8.33	2.78	16.67
	21 - 30	16.67	11.11	19.44	47.22
	31 - 40	8.33	5.56	5.56	19.45
	≥41	2.75	8.33	5.56	16.67
Trade Experience (in years)	≤ 1	19.44	5.56	16.67	41.67
	2 - 4	11.11	22.22	11.11	44.44
	≥4	2.78	5.56	5.56	13.90
Capital Acquisition	Personal Savings	13.89	16.67	22.22	52.78
	Loaning from friends	19.44	16.67	11.11	47.22
Potential buyers (consumers)	Hotels and restaurants	25.00	16.67	19.44	61.11
	Individuals	8.33	11.11	5.56	25.00
	Other buyers	2.78	9.33	2.78	13.89

Table 2 shows that the mother (38.89%) and children (33.33%) have taken responsibility of poultry keeping at household level compared to mother and father (5.5%), and the least scored father with 3.0 %. Therefore, women empowerment and responsibility are demonstrated in Juba County.

Table 2: Ownership and Responsibility for Poultry at households’ level in Rejaf, Kator and Munuki Payams of Juba County, South Sudan.

Variables	Payam (%)			Overall (%)
	Rejaf	Kator	Munuki	
Father	0.00	3.00	0.00	3.00
Mother	11.11	11.11	16.67	38.89
Children	11.00	14.00	8.33	33.33
Mother and Father	2.78	0.00	2.78	5.56
Mother and Children	5.46	8.10	5.66	19.22
Total	30.35	36.21	33.44	100.00

Table 3 shows that the ranking of consumers’ preferences was higher (42%) in exotic Indbro Rainbow Roaster compared to 30% indigenous breeds and 22% Ross 308 Broiler and 06% Indbro Fast Broiler (6%) exotic breed from Uganda. Whereas the consumption pattern of frozen chicken accounted for 72% in Indbro Rainbow Roaster, 17% in Ross 308 Broiler compared to 11% found in other indigenous

poultry breeds of Juba County (Table 4).

Table 3: Ranking of consumers’ preference in the poultry products in Juba County South Sudan

Ranking	Type of frozen broilers	Origin of frozen broilers	Percentage (%)
1	Indbro Rainbow Roaster	Uganda	42
2	Baladi breed (indigenous)	Juba County, South Sudan	30
3	Ross 308 Broiler	Uganda	22
4	Indbro Fast Broiler	Uganda	06

Table 4: The consumption pattern of frozen chicken in Juba County South Sudan

Ranking	Consumption pattern of frozen broilers	Origin of frozen broilers	Percentage (%)
1	Indbro Rainbow Roaster	Uganda	72
2	Ross 308 Broiler	Uganda	17
3	Baladi breeds (indigenous)	Juba County, South Sudan	11

Table 5 shows percentage of supply and demand of frozen chicken carcasses and fresh eggs which varies from one market to another market for sale to potential consumers. The supply of fresh eggs in the four markets showed no significant variation compared to the supply of frozen chicken carcasses in Gu’dele (35.19%) and Gumbo (15.74%) markets. Similarly, the demand of frozen chicken

in Konyokonyo (35.16%) and fresh eggs in Nyokuron (36.94%) revealed significant differences compared to other market.

Table 5: Percentage of Supply and Demand of frozen chicken carcasses and fresh eggs at four markets for sale to potential consumers in Juba County South Sudan.

S/No.	Market	Supply %		Demand %	
		Frozen chicken	Fresh eggs	Frozen chicken	Fresh eggs
1	Gu'dele	35.19	20.22	25.19	20.21
2	Nyokuron	25.93	26.97	22.92	36.94
3	Konyokonyo	23.15	25.84	35.16	24.62
4	Gumbo	15.74	26.97	16.73	18.23

4. Discussion

Poultry marketing and trade activities serve as source of livelihood that enable the disadvantaged group of women and children to address their basic needs in Juba County. This case study shows that women and children have professed poultry keeping at household level suggesting that women's engagement in poultry sector help subsidize home expenses and mitigate over dependence on husbands [10]. This is in line with the findings that women smallholder poultry production remains supplementary to the household economy [8]. This is also substantiated with our study which showed that the majority of female respondents suggesting their sole responsibilities for chicken rearing activities compared to males [11]. Seemingly, women smallholders of different age group keep poultry with various reasons regardless to social status and life style [12]. In rural Africa, gender equality has led to enhanced food and nutrition security, and poverty reduction due to the role of family poultry projects [13].

In Ghana, women have been offered access to microcredit such that poultry income could be used for monthly repayment of loan, or investing in other income generating activities [1]. This may also be applied to women professing poultry keeping in Juba County as the majority of whom have no access to microcredit support. Consequently, capital acquisitions for poultry production were mainly derived from personal savings and or loaning from friends. In Senegal, evidence has shown that livelihoods of traders and food and nutrition security are enhanced through the provision of more secure and valuable saving and insurance to alleviate poverty [14]. Such an activity allows potential traders to build up their resource base, as poultry marketing serves as the most important means of reducing vulnerability in Ethiopia [15]. This is in line with the poultry traders in Juba County who undertake poultry activities as a source of income generation. Nevertheless, motivation of an individual trader to poultry marketing activity lies on individual interest [16, 17].

Evidence has shown that there are various factors influencing traders of different age group in the poultry marketing activity [6]. In Juba County traders are engaged in poultry activity for personal needs which may either be categorized economically or socially based on the interest of an individual trader for such a lucrative business. The poultry marketing activity supports livelihoods and helps mitigate and reduce incidences of malnutrition among the potential consumers. Such activities in India are more likely to effectively contribute to poverty reduction and economic growth as poultry marketing systems seem to be promising for sustainable development of the poultry sector [18].

Marketing is 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 [19]. The women who take part in the development programmes that offer access to microcredit, may use the poultry income for monthly repayment of loan, or investing in other income generating activities such as petty commerce or agriculture in Ghana [1]. This may also be applied to women engaging in poultry keeping in Juba County, although the majority in Juba city have no access to microcredit support. As such capital acquisitions have been derived from personal savings and loaning from friends.

The growth of various market segments and fast food retail outlets had a major impact on poultry sales of poultry products in Juba County. The pricing factor which has been fairly declining relative to red meat stimulates a further expansion of poultry market demand. Moreover, taste has shifted overtime as health fears contribute to a switch away from red meat to poultry meat in Vietnam [12]. The growth of poultry markets in Juba was ascribed to high population growth rates coupled with high influx of foreigners in the county. The poultry markets and fast food retail outlets have created easy access to abundant cheap source of animal protein to the potential consumers. These consumers could eventually acquire all their essential nutrients needed for healthy growth to drastically reduce cases of malnutrition.

The poultry marketing activity plays a significant role in the well-being of those engaged in the activity which could contribute to and derive benefit from growth of the poultry subsector [14]. Moreover, such an activity creates alternative source of employment to potential traders and helps diversify economy of the producing countries by generating an alternative source of revenue [14]. The apparent importation of exotic breeds of poultry to Juba County is due to increasing demands of the consumers and their preference for a particular breed of poultry birds [4]. It has been shown that individual consumers are interested in good tasting and healthy food, therefore the decision to purchase a poultry breed with special taste is taken into account [20].

Not surprisingly, that the consumption pattern for different types of poultry products vary with their availability, accessibility, and affordability in market places. Accordingly, market demand has offered higher consumption rate compared to a limited supply. Frozen chicken carcasses are cheaply sold in South Sudan as they are readily available in local markets ranking the highest compared to imported live poultry birds and those produced locally in Juba County. Poultry breeds that are limited in supply and not affordable are always lower in consumption pattern to the potential consumers in India New Delhi [18], which is a similar case in Juba County.

Chicken are enriched with micronutrients needed for body growth, and these micronutrients may also help reduce the risk of metabolic diseases [20]. Nevertheless, the consumption pattern of the poultry products in Juba County is much less than other regions in the world. This scenario could be explained by differences in pattern of income per capita and the level of production, as well as the subsistent nature of poultry production in Juba County. It has been observed that both the demand and supply factors are exclusively responsible for the growth of poultry marketing activity in Juba County. This could be attributed to income growth pattern of the population, urbanization, advances in production and improvement along the supply chain.

Tschirley *et al.* [21], reported that the overall cost of supplying, distributing, and accessing food availability is likely to increase as the numbers of urban households escalate. Some studies show that supply factors have strengthened the expansion in demand of poultry products which are relatively stable and affordable to the potential consumers [11]. Such findings have eventually concurred with this case study in Juba County' markets.

5. Conclusion

Poultry keeping, marketing and trade help families supplement home economy and women empowerment to address the basic daily needs. Poultry business in Juba County is lucrative and promising as such accessibility to microfinance system for women and youth is highly needed. Investors are urged and encouraged to develop poultry sector for sustainable development of poultry industry in South Sudan.

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7. References

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