

(RESEARCH ARTICLE)



Provisioning and the marketing of eggs with Abéché in the East of Chad

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Abstract

The objective of this study is to know the provisioning and the marketing of eggs for consumption in the town of Abéché. The study was undertaken by socio-economic investigation in two markets of the city for one month (month of May 2019) near ninety-five (95) commercial of eggs. The collected data related to the matrimonial situation, and level of study of the tradesmen, the kinds and the religion, and the various categories (wholesalers, wholesaler-retailers, retailers, and peddlers), the provisioning and marketing of eggs. The results show that mainly the men practice the marketing of eggs. The majority of the surveyed tradesmen were married, and a small percentage of those constituted the whole of the single people. Half of eggs marketed in the town of Abéché come from Sudan, follow-up of Cameroun and a small proportion produced locally in Chad. The average of the sale of eggs is higher in the wholesalers 1300 ± 170.83 , followed wholesalers retailers 284 ± 60.28 and one weak average observes in the peddler and detailing respectively 98 ± 60.28 and 97 ± 89.79 . The production of eggs for consumption is very weak in Chad and in particular in the town of Abéché, this weak production results in the importation of eggs of the adjoining country. The control of this distribution chain proves to be necessary for the establishment of the hen houses in the town of Abéché.

Keywords: Eggs; Provisioning; Marketing; Abéché; Chad

1. Introduction

Chad is a country sahelian with vocation agro pastoral which mainly based its economy on the valorization of the livestock products. The sector of the breeding accounts for 53% of the Gross domestic products (PIB) of the sector rural and made live approximately 40% of the rural population and contains an important manpower of livestock including 93.8 million units of cattle. Concerning the poultry, manpower is estimated at 34.6 million heads, including 26.6 million chickens (76.7% of manpower). The ducks, the geese, the guinea fowls and the pigeons constitute the other poultries [1]. Family poultry farming is a lever to improve the incomes and food safety of the poor and stripped households [2, 3, 4]. Poultry farming is one of the sectors of the breeding in real growth in the tropical countries. This growth is due, on the one hand with the choice place which occupy the products of the poultry in the menu of the households, the absence of prohibited monk and his qualities nutritional and on the other hand with the facility of its production [5]. Moreover, the poultry meat is one of most popular since it represents an excellent source of proteins and it is weak out of fat contents contrary to the red meat [6]. It constitutes the most effective palliative towards the strong demand of the animal protein populations and did not cease making remarkable great strides since the beginning of the Sixties. This

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dynamism is explained by the conjugation of many factors, such as genetic progress, the managerial improvement of the intensification of the die and progress of a medical and food nature [7]. The egg is a not very heat-conveying food builder. A weight of 60g provides 91 kcals metabolizable energy [8]. The egg makes leave the foodstuffs of animal origin richest in proteins and contains in balanced proportion all the essential amino-acids [9]. In addition, the necessary investment in production of eggs for consumption is relatively weak and quickly generates benefit taking into account the fact that the hen starts to lay between 18-20 weeks of age and lays between 250-266 eggs per annum of production in tropical medium [10]. It is difficult to plan and apply the development programs of this under-sector of the breeding when his system of production is not controlled and of marketing [4, 11, 12]. The production of eggs for consumption is very weak in Chad. This weak production is the cause of rarefaction of the latter in the various markets of Chad and in particular in the markets of the town of Abéché. What explains the strong demand of eggs in the town of Abéché. This exponential request for these food products gives an economic importance, for the tradesmen and the producers of eggs. It is accordingly that this study was undertaken to seek to know the provisioning and the marketing of eggs in the town of Abéché.

2. Material and methods

2.1. Description of the zone of study

The town of Abéché is the capital of the province of Ouaddaï and is located between the 13° 48' 584" of Northern latitude and the 20° 50 ' 139" of longitude Is. The zone of study is under the influence of an intertropical climate with one 9 months dry season and 3 months a rainy season. The annual average temperature with Abéché is approximately 28 °C with a variation in cold season (December at February), included/understood between 16 and 35 °C and in dry season (April and May) ranging between 25 and 41 °C. This city knows a climate of the Sahelian type, characterized by one dry season and rain season which is spread out over three months (July at September) which extends over nine months (October at June). Relatively weak precipitations, variable between 500 and 600 mm per annum, with an annual average temperature of 32 °C [13]. The choice of the zone of study was dictated by a strong demand of eggs for consumption by the population of the locality. This exponential request for these food products gives an economic importance, for the tradesmen and the producers of eggs.

2.2. Sampling and method of data-gathering

2.2.1. Samplings

The study was led by investigations socio-economic in two markets of the town of Abéché (Market Tarodona and Central Market) for one month (month of May 2019) near ninety-five tradesmen of the eggs (95). An individual direct maintenance was carried out near each tradesman, whose distribution according to the sexes and market is described in table 1.

Table 1 Distribution of the tradesmen according to the sex and market

	Male	Female	Total
Market Tarodona	32	15	47
Central market	31	17	48
Total	63	32	95

2.2.2. Method of data-gatherings

A questionnaire semi-structured was used as guide of maintenance. The principal points approached at the time of the investigation were the matrimonial situation and level of study of the tradesmen, kinds and the religion, and the various categories (wholesalers, wholesaler-retailers, retailers, peddlers) of two sexes. All the tradesmen who are surveyed are henceforth identified.

2.3. Statistical analyzes

The data collected were analyzed using software XLSTAT (2007.8.04). The descriptive analysis made it possible to determine the parameters of dispersion (average, standard deviations) and variance (ANOVA) analyze it was made with the test of Newman Keuls to the threshold of 5%.

3. Results

3.1. Characteristics of the actors

The characteristics of the tradesmen of the eggs (sex, matrimonial situation and the level of study of surveyed) are described in (Table 2).

Table 2 Profiles of the tradesmen of eggs of the town of Abéché

Parameters	Method	Manpower	%
Sex	male	63	66.32
	Female	32	33.68
Matrimonial situation	Married	77	81.05
	Single people	11	11.57
	Widows	7	7.38
Level of study	illiterate level of study	51	53.68
	Primary education	28	29.47
	Secondary	13	13.68
	Superior	3	3.16

The marketing of eggs with Abéché- is practiced mainly by the men and minority by the women ($p < 0.05$). More majorities of the surveyed tradesmen were married and a small percentage of those constituted the whole of the single people ($p < 0.05$). The highest proportion of surveyed are illiterates followed of those, which have the secondary level, and the smallest proportion has the primary education and higher level respectively ($p < 0.05$).

3.2. Distribution of the tradesmen of eggs according to the age

The distribution of the tradesmen of eggs according to the age is summarized in (Figure 1).

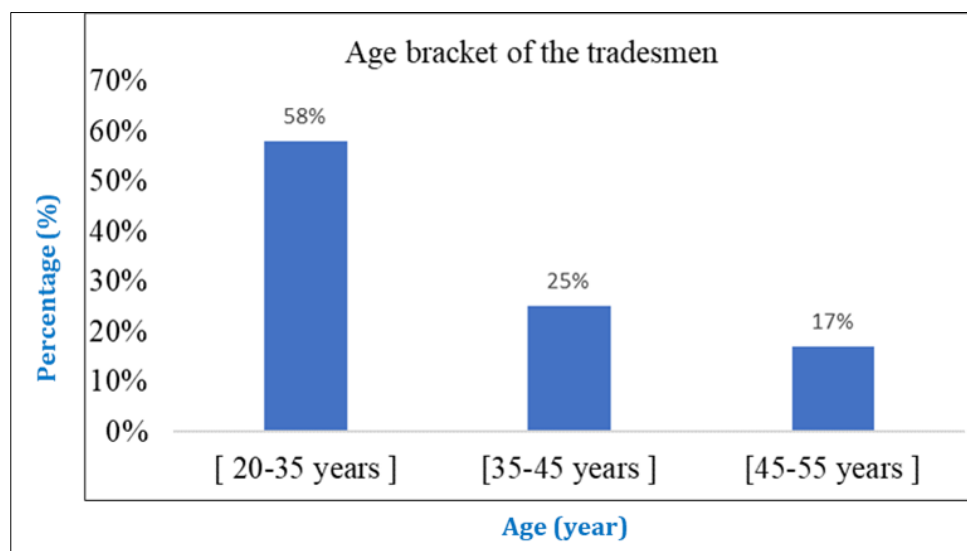


Figure 1 Distribution of the tradesmen of eggs according to the age

The tradesmen having the age ranging between 20 and 35 years were most numerous in the zone of study, follow-ups of those less than 45 years and those old of more than 45 years were fewer.

3.3. Categories of the tradesmen

The categories of the tradesmen (wholesalers, wholesaler-retailers, retailers and peddlers) are summarized in (Figure 2).

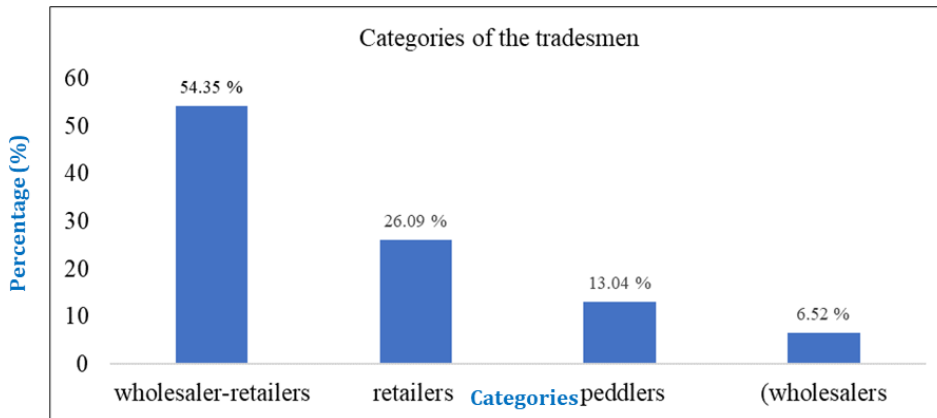


Figure 2 Categories of the tradesmen

More half of the tradesmen of eggs are wholesaler-retailers, follow-up of the tradesmen retailers. The remaining part, which are consisted of the wholesalers, and the peddlers ($p < 0.05$).

3.4. Source of marketed eggs

The eggs marketed in the town of Abéché have three (03) origins.

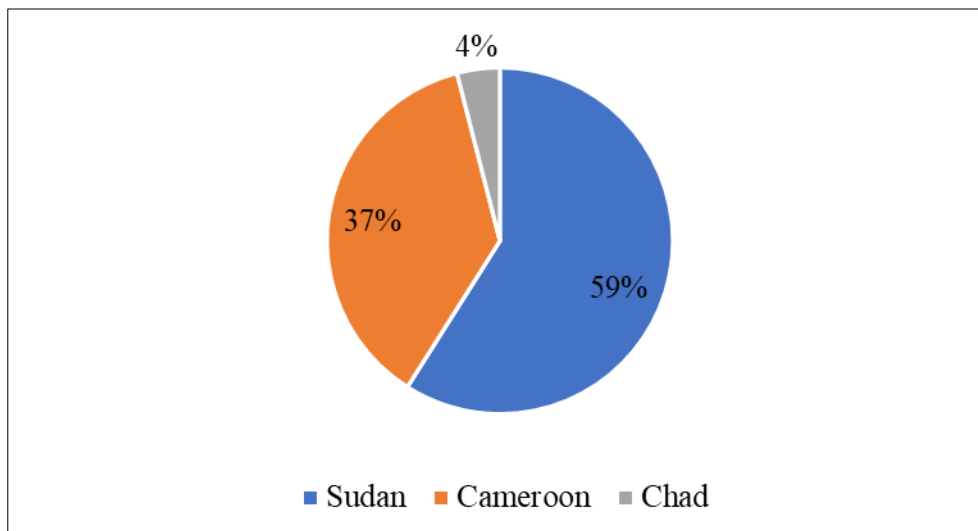


Figure 3 Source of marketed eggs with Abéché

More half of eggs marketed in the town of Abéché come from Sudan, follow-up of the eggs which come from Cameroon and a small proportion is produced locally in Chad ($p < 0.05$).

3.5. Means of transport of eggs with Abéché

The means of transport of eggs used in the town of Abéché were varied (figure 4).

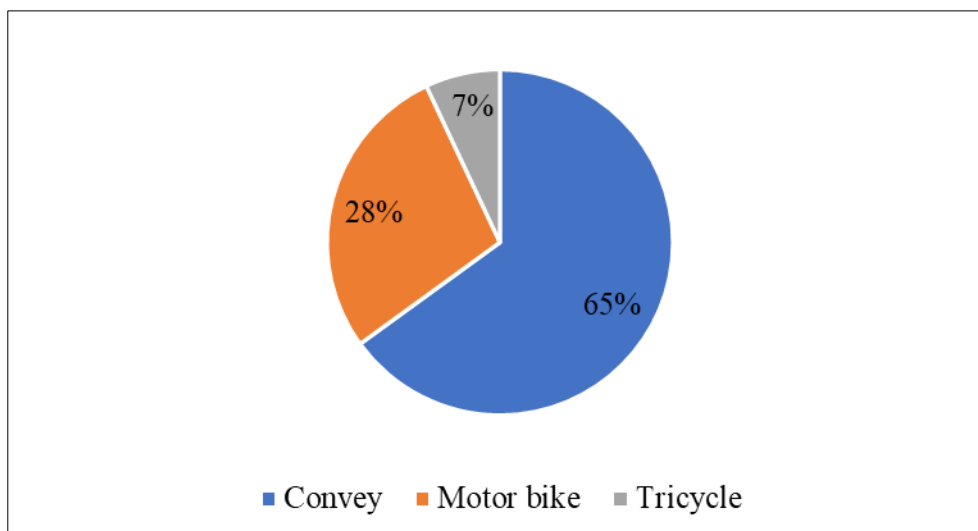


Figure 4 Means of transport of eggs with Abéché

More half of the tradesmen of eggs with Abéché, the vehicle is used like principal the means of transport of eggs followed by the motor bikes. The remaining part uses the tricycles (Rakcha or Barbara) like means of transport ($p < 0.05$).

3.6. Sale of eggs according to the categories and source

The sale of eggs according to the categories (retailer, peddler, wholesaler - retailer and wholesaler) and their sources are described in Table 3.

Table 3 Sale of eggs according to the categories and source

Parameters	Characters	Average
Categories of the tradesmen	Detailing	97 ± 89.79 ^a
	Peddler	98 ± 60.28 ^a
	Wholesaler-retailer	284 ± 60.28 ^a
	Wholesaler	1300 ± 170.83 ^b
Source of eggs	Sudan	202 ± 60.20 ^a
	Cameroon	272 ± 81.35 ^a
	Chad	1340 ± 205.96 ^b

The highest average of sale is observed at the wholesalers, follow-up of the wholesaler’s retailers and a weak average observed respectively at the peddlers and retailers ($p < 0.05$). The most sold eggs are those produced locally in Chad, follow-up of eggs coming from Cameroun and Sudan ($p < 0.05$). The high rate of sale of local eggs can be explained by the fact why these eggs are produced in the vicinity and come from local hens contrary to eggs import-adjointing countries like Sudan and Cameroun.

4. Discussion

4.1. Characteristics of the tradesmen of eggs

The poultry production contributes not only to the satisfaction of the needs for the animal protein populations but also to the economic development of the underdeveloped countries. The provisioning and the marketing of eggs constitute the economic links of the production unit of eggs of table. The present study showed that the men compared to of the women practice the system of marketing of eggs with Abéché more. The higher proportion of the men in this activity is because the trade in Chad is are in general is a business more dominates by the men. Those results corroborate with the

results obtained in the area of Ménaka in Mali, that the men are majority in the sale of eggs compared to the women [14], and [2] in Senegal. Our results are in disagreement with the reports reported [15-16] in Ethiopia, [3] in Uganda and [17] with the Benign one. Indeed, these various authors had announced that the sales volume of the poultry products on the markets was dominated by the women. Most of the tradesmen of eggs with Abéché (81.05%) are married. The great proportion of married among inquired translated the level of social importance of the breeding of chickens in the zone of study. These results higher than 65% of grooms are reported to N'Djamena [18]. More half of surveyed and illiterate (53.68), followed those having a secondary level (29.45). What translates by the unschooling and of illiteracy into stockbreeder medium in the zone of study. These results are different with those obtained with Benign [19]. That the salesmen of eggs in this country are mainly illiterate (44%), and the primary education level (39%), and (22%) have a secondary level. The age bracket mainly of the tradesmen lies between 20-35 years (58%). What shows that the tradesmen of eggs with Abéché are relatively very young. These results are different from that obtained in the area of Ménaka in Mali [14]. The Middle Age of the salesmen which is 46 years.

4.2. Categories of the tradesmen of eggs with Abéché

Four (04) categories of the tradesmen of eggs were identified in Abéché, including 54.35% of the wholesaler-retailers, 26.09% of the retailers, 13.04% of the peddlers and in the end of 6.52% of the wholesalers. These results bring closer [18] which showed that in N'Djamena 75.7% of the egg salesmen are consisted of the retailers, 7.9% of the wholesalers and 13.4% of the peddlers.

4.3. Means of transport of eggs in the city of Abéché

The means of transport borrowed by the tradesmen of eggs in the town of Abéché are the vehicles, the machines with two wheels or sometimes the tricycles commonly called (Barbara). The vehicles are used for transported eggs of the store at the market. More half of the tradesmen use the vehicles as average of transport of eggs. The system of marketing of eggs makes it possible to the tradesmen to be regularly supplied. The collected eggs each day are put in cells of 30 eggs. They are sold either on the spot, or convoyed in the markets and the restaurants of the city.

5. Conclusion

The study made it possible to determine the provisioning and the marketing of eggs in the town of Abéché. It comes out from this study this activity is practiced at 100% by the Muslim community, which is mainly made up of the married men and women. The educational level of these tradesmen is low. The Middle Age of the tradesmen is 25 years with average experiment in the 3 years activity. More half of eggs marketed in the town of Abéché come from Sudan, follow-up of the eggs, which come from Cameroon, and a small proportion is produced locally in Chad. Thus, four (4) categories of the tradesmen who practiced the trade of eggs. The trade of eggs for consumption constitutes not only one considerable source of income to the tradesmen but also contribute effectively in the food safety of the population. A future study near the tradesmen will make it possible to better know the system of trade of eggs in the town of Abéché and to make an adequate orientation on the production of eggs in order to meet the need for the population of the town of Abéché.

Compliance with ethical standards

Acknowledgments

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Disclosure of conflict of interest

No conflict of interest.

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