



Analisis Pendapatan Pedagang Karkas Ayam Broiler di Pasar Tradisional Kota Kupang

Income Analysis Of Broiler Carcass' Traders in Kupang City Traditional Market

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ABSTRAK

Suatu survei sepanjang bulan April 2023 dilakukan terhadap para pedagang karkas ayam broiler di pasar tradisional Kota Kupang yang bertujuan untuk mengetahui pendapatan pedagang karkas ayam broiler di pasar tradisional Kota Kupang. Pengambilan contoh dilakukan melalui dua tahap yakni penentuan empat pasar tradisional secara purposif dan penentuan pedagang karkas sebagai responden dilakukan secara acak non proposional sehingga diperoleh 60 responden representatif. Analisis data yang digunakan adalah analisis pendapatan. Data diolah menggunakan Microsoft Excel 2010. Hasil analisis menunjukkan bahwa pendapatan pedagang karkas ayam broiler di pasar tradisional Kota Kupang sebesar Rp14.698.832/tahun atau produktivitas modal pada usaha ini adalah 69,74%. Kesimpulannya usaha penjualan karkas ayam broiler telah mampu menghasilkan pendapatan bagi pedagang karkas ayam broiler. Oleh karena itu, disarankan agar pedagang karkas ayam broiler di pasar tradisional Kota Kupang dapat meningkatkan manajemen kualitas karkas, mempromosikan karkas yang dihasilkan kepada konsumen, serta memperluas jaringan pemasaran dengan menggunakan pemasaran digital melalui media sosial agar usaha yang dijalankannya dapat memberikan keuntungan yang lebih besar.

ABSTRACT

A survey in April 2023 was conducted on broiler chicken carcass' traders in the Kupang City traditional market which aimed to: find out the income of broiler chicken carcass traders in the Kupang City traditional market. Sampling was carried out through two stages, namely the determination of four traditional markets purposively and the determination of carcass traders as respondents was carried out randomly non-proportionally so that 60 representative respondents were obtained. The data analysis used is revenue analysis. The data was processed using Microsoft Excel 2010. The results of the analysis show that the income of broiler chicken carcass traders in the traditional market of Kupang City is Rp14,698,832 / year or capital productivity in this business is 69.74%. In summary, it can be said that the broiler chicken carcass sales business has been able to generate income for broiler chicken carcass traders. So it is recommended that broiler chicken carcass traders in the traditional market of Kupang City can improve carcass

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quality management, promote the carcass produced to consumers, and expand marketing networks by using digital marketing through social media so that the business they run can provide greater profits.

1. Introduction

Livestock development is an inseparable part of agricultural development. Agricultural development is directed to increase the income and standard of living of farmers, ranchers, expand employment, and expand and fill market segments both domestic and foreign markets. The domestic market is a prospective form of economy activities such as traditional markets. The existence of traditional markets in Kupang City is a form of people's economy which providing extensive employment opportunities for the community. The commodities traded in the traditional markets of Kupang City are very diverse, including agricultural and industrial products. One of the agricultural products marketed is livestock products in form of broiler chicken carcasses.

Population of broiler in Kupang City in the last three years were as follow: in 2019 the number of broiler was 4,728,243 heads and increased to 4,764,691 heads in 2020, then it reached 5,392,702 heads in 2021 (BPS NTT, 2021). Average of broiler meat at consumer's level was 32,217.00/kg or it was increased to 0.14% comparing with the average price of broiler meat in 2019. The highest price of broiler's meat in Kupang City was IDR42,433.00/kg. It was reported that numbers of slaughtering broiler in Kupang City in period of 2019 – 2021 were fluctuated as follow: in 2019 it was reached 4,199,861.84 heads; in 2020 it was increased to 10,003,445.00, then, in 2021 it was declined to 9,584,360.00 (BPS NTT, 2021).

A high number of broiler population and broiler's meat production in Kupang City reflected a high demand of the broiler's meat in the area. A high demand of the broiler's meat due to a high number of citizen's population in Kupang City. It was reported that in period of 2019-2021, the population of citizen in Kupang City was 434,972 persons, then it was increased to 446,193 persons in 2020, and in 2021 it was reached to 452,626 persons (BPS NTT, 2019, 2020, 2021). The high number of the citizen's population was a potential consumer of the broiler's meat. This condition supported the existence and development of broiler's carcass marketing. Any economy activity or any entrepreneurship goal is to achieve a maximum income. However, most of the broiler's

carcass traders have not been calculating yet their income gained from the broiler's carcass sold.

2. Materi dan Metode

2.1. Research Material

This study was conducted in Kupang City. Method of selecting sample was done in two stages. First, to determine the traditional markets, purposively. Therefore, four markets were selected in Kupang City, namely the market of Inpres, Oebobo, Oeba, and Oesapa markets. According to pre-survey, the four markets were selected based on the reason that those markets selling broiler's carcass with a high number of traders and consumers. It was found that the number of broiler's carcass traders in the market of Inpres was 25, Oebobo was 30, Oeba was 50, and Oesapa was 20 persons. Second, the selection of respondents were done based on a non-proportionally random sampling. In this case, each market represented by 15 traders of the broiler carcass. Therefore, the total number of the respondents were 60 traders.

Regarding data characteristic, the research data were consisted of two kinds of data, namely quantitative and qualitative data. The quantitative data were data or information figured in number, such as capital, cost of slaughtering, and number of the broiler's carcass sold. Then, the qualitative data were data offered from the respondents based on interview, such as: gender, level of education, job, etc.

Concerning source of data, the data were consisted of two kinds of data, namely primary and secondary data. The primary data were obtained from retailers as respondents based on direct interview. The interview was referred to the prepared questionnaires. Then, the secondary data were obtained from report of Government institutions and relevant articles. The secondary data such as slaughtering quantity of broiler in Kupang which reached at 10,003,445.00 in 2020. The secondary data were obtained by applying documentation technique.

2.2. Method of Data Analysis

The collected data were tabulated and analyzed both descriptively and quantitatively. The first step of analysis done was the analysis of average value, standard deviation (SD), Coefficient of Variation (CF), and cross table. The first objective of the

research can be answered by applying analysis of income. The procedure of income analysis was described as follow.

2.2.1. Production cost

Production cost is all expenditures spent to produce a product in a certain time. Production cost covers fixed cost and variable cost. Soekartawi (2002) stated that the production cost can be analyzed based on the following formulation:

$$TC = FC + VC$$

where:

TC = total cost (IDR/period)

FC = fixed cost (IDR/period)

VC = variable cost (IDR/period)

2.2.2. Revenue

Dewi (2019) states that revenue can be sourced from the results of the business being run. Revenue from the marketing of broiler chicken carcasses is influenced by the amount of meat sold by traders. Soekartawi (2002) stated that the revenue can be analyzed based on the following formulation:

$$TR = P_y \cdot Y$$

where:

TR = total revenue (IDR/period)

P_y = price (IDR/kg)

Y = yield (output (kg/period))

2.2.3. Analysis of business's income

Income is a difference value between revenue and cost. The income plays an important role to the sustainable of a business. The higher the income gain, the higher the business ability to spend all expenditures an all activities in business (Normansyah *et al.*, 2014). Formulation of income analysis according to Soekartawi (2002) was as follow:

$$I = TR - TC$$

where:

I = income (IDR/period)

TR = total revenue (IDR/period)

TC = total cost (IDR/period)

3. Result and Discussion

3.1. Description of Research Site

Kupang City is an administrative area as same as regency level. The capital of Kupang City is Kupang. Kupang City also the capital of Nusa Tenggara Timur (NTT) Province. Kupang City is located in the North West of Timor Island as an area at the coast of Teluk Kupang. Administratively, Kupang City covers 6 sub-districts and 51 villages. Elevation and width of each sub-district was shown on **Table 1**.

Table 1. Capital of Sub-districts, Width and Elevation of Kupang City according to Sub-district

| Sub-district | Capital of Sub-district | Width of Area (Km ²) | Width of Area in Percentage (%) | Elevation (m of sea level) |
|--------------------|-------------------------|----------------------------------|---------------------------------|----------------------------|
| Alak | Pensake Oeleta | 86,91 | 48,21 | 120 |
| Maulafa | Maulafa | 54,8 | 30,4 | 130 |
| Oebobo | Oebobo | 14,22 | 7,89 | 80 |
| Kota Raja | Kota Raja | 6,1 | 3,38 | 90 |
| Kelapa Lima | Kelapa Lima | 15,02 | 8,33 | 50 |
| Kota Lama | Kota Lama | 3,22 | 1,79 | 30 |
| Kupang City | | 180,27 | 100 | 500 |

Source: Central Bureau of Statistics in numbers, 2021 (processed).

Concerning climate, Kupang City has dry tropical climate with two seasons namely rainy season and dry season. The rainy season is relatively short (3 – 4 months only) lasting from November – Maret. Then, the dry season is relatively long (8 – 9 months) lasting from April – October.

Kupang has 452,626 population. Kupang City has the highest number of settlements in NTT with its population density reaches at 2,456.08 persons/km². The settlement have various jobs, such as entrepreneurs of UMKM, businessmen, traders, farmers, fishermen, civil servants, and members of soldiers (TNI) and policemen (POLRI). Mobility of the settlement is relatively high supports its economic community's activities. Centres of economic activities in Kupang City can be found at traditional markets, shops, and any other service center institutions.

Local Company called Perusahaan Daerah (PD) of Kupang City reported that in 2023, there were 7 traditional markets namely market traditional collaborate with the Local Company in Kupang City. Those traditional markets are: 1) Pasar Kasich at Village

of Naikoten I, Oebobo Sub-district, 2) Pasar Fatubesi at Kota Lama Sub-district, 3) Market Oebobo at Village of Fatululi, Oebobo Sub-district, 4) Pasar Kuanino at Village of Kuanino, Oebobo Sub-district, 5) Pasar Stadion Merdeka as an industrial market at Village of Merdeka, Kota Lama Sub-district, 6) Pasar Jl. Udayana as an industrial market at Village of Solor, Kota Lama Sub-district, and 7) Pasar Kelurahan Penfui at Penfui Village, Maulafa Sub-district.

On the other hand, there are three traditional markets in Kupang City that operate privately and do not collaborate by the Local Company. These types of markets are: 1) Pasar Oesapa at Village of Oesapa, Kelapa Lima Sub-district; 2) Pasar Ikan Segar (Fresh Fish Market) Kelapa Lima (pasar tradisional); dan 3) Pasar Ikan Felaleo (Felaleo Fresh Fish Market) at Village of Pasir Panjang, Kelapa Lima Sub-district.

3.2. Inputs of Broiler's Carcass Business

The business of broiler's carcass in the traditional markets in Kupang City have four kinds of inputs. The inputs were broilers, feed, cages and equipment, as well as labors.

3.2.1. Broiler

Broiler chickens are chickens developed to be able to produce meat quickly Rahayu et al. (2019). Broiler that be ready to be slaughtered were the main inputs in the business of broiler's carcass selling. The business used broilers on range of life bodyweight was at 1.4 kg - 2 kg. The broilers, then, were processed to be carcass, either fresh carcass and freeze carcass. Chicken carcass production is closely related to chicken live weight, therefore an increase in chicken live weight followed by an increase in carcass weight Londok et al. (2016). The broiler's carcass produced by the traders were marketed to the consumer at the traditional markets in Kupang City.

3.2.2. Feed

To produce maximum weight gain and quality of broiler, it is very necessary to pay attention to the quality and quantity of rations provided Tumbal and Simanjuntak (2019) feed of the broilers during sheltered period before slaughtering was commercial feed such as BR1, BR2, and local feed for instance mayze. Frequency of feeding was 2 – 3 times/day

in the morning, during the day, and in the afternoon. Average of feed cost in production process during sheltered period was IDR7.717.867,-/year as cost in cash.

3.2.3. Cages and equipments

Nadzir *et al.* (2015) stating that a cage that is not in accordance with the technical requirements of a good cage will cause various problems, both to the chickens themselves and to workers. Cages to shelter the broilers were established on the backyard of the broiler's carcass trader's house. Kinds of the cages can be seen on **Table 2**.

Table 2. Kinds of broiler's cages

| No | Kind's of the cages | Total | Percentage (%) |
|--------------|----------------------|-----------|----------------|
| 1 | Simple cages | 57 | 95,0 |
| 2 | Semi-permanent cages | 2 | 3,3 |
| 3 | Permanent cages | 1 | 1,7 |
| Total | | 60 | 100 |

Source: Primary data analyzed, 2023

The simple chicken coop in question is a cage made by severe traders using makeshift materials as temporary chicken shelters before the chickens are processed into carcasses, which are built in the trader's yard. The denser the cage, the more the amount of consumption and conversion of rations will increase Woro *et al.* (2019). Average of the cages width was $11,23 \pm 6.26 \text{ m}^2$ (KV= 55.69%). The cages were made from local materials and some materials bought from shop. The local materials were wood and bamboo; while the materials from the shop such as nails, cement, tarpaulin, etc. Average of the cages' cost was IDR3,460,000 \pm 2,035,278/year with its CV was 58,82%. The cages' economic age was 3 years for the simple cages, 5 years for the semi-permanent cages, and 10 years for the permanent cages.

The equipments provided were chicken feeder, chicken drinking place, bucket, bucket of water, broom, shovel, water hose, generator, incandenscent lamps, weight scales, chicken feather removal machine, freezer, steamer pots, knives, and machetes. Average of the equipments' cost was IDR32,016,833 \pm 9,234,999/year with its CV was 28.84%.

3.2.4. Labors

Labors used in the broiler's carcass business in Kupang City were family labors, consist of husband and wife (spouse). There were no cost spent for the family labors. It means, the payment for labors from outside of the family will be gained as income of the broiler's carcass traders Suratman (2015). Average of time allocation in the business of the broiler's carcass in the traditional markets in Kupang City reached at 997.2 ± 106.5 Man Daily Work/year, with its CV was 10.68%.

3.3. Cost, Revenue, and Income of Broiler's Carcass Traders in the Traditional Markets in Kupang City

3.3.1. Cost

3.3.1.1. Investation Cost

Sujatmiko *et al.* (2023) states that investment is a commitment to fund or other resources made in the present with the aim of obtaining a number of benefits in the future. Investment cost spent in the business of broiler's carcass selling in the traditional markets in Kupang City consist of costs, namely the cost of building the cages and the cost of equipments. **Table 3** showed that average of the investation cost for building the cages was IDR3,460,000,- (9,76%), and the average cost of equipments was IDR32,016,833,-. Total investation cost spent by the traders of broiler's carcasss in the traditional markets in Kupang City was IDR35,476,833,-/year. A previous research conducted by Jo *et al.* (2022) found that the investation cost spent by the carcass' traders was IDR8,807,125/year. It means that the investation cost spent for cages and equipment based on the research of Jo *et al.* (2022) was lower than that of this research.

Table 3. Average of cost, revenue, and income of the broiler carcass business in traditional markets of Kupang City

| No | Description | In cash (IDR/year) | % |
|----|---------------------------------|--------------------|-------|
| 1 | Investation Cost | | |
| | Cages | Rp3.460.000 | 9,76 |
| | Equipments | Rp32.016.833 | 90,24 |
| | Total | Rp35.476.833 | 100 |
| 2 | Operational Cost | | |
| | A. Fixed Cost | | |
| | Depreciation Cost of equipments | Rp6.591.458 | 86,2 |
| | Depreciation cost of cages | Rp1.054.444 | 13,8 |
| | Total Fixed Cost | Rp7.645.903 | 100 |
| | B. Variable Cost | | |
| | Fixed Cost | Rp7.717.867 | 57,47 |

| No | Description | In cash (IDR/year) | % |
|----|----------------------------|--------------------|-------|
| | Market Retribution Cost | Rp1.003.750 | 7,48 |
| | Transportation Cost | Rp4.708.500 | 35,05 |
| | Total Variable Cost | Rp13.430.117 | 100 |
| | Total Operational Cost | Rp21.076.019 | 37,26 |
| 3 | Revenue | | |
| | Selling Carcass | Rp30.579.807 | 85,48 |
| | Selling Edible Non Carcass | Rp5.195.044 | 14,52 |
| | Total Revenue | Rp35.774.852 | 100 |
| 4 | Income | | |
| | Income of Total Cost | Rp14.698.832 | 69,74 |

Source: Primary data analyzed, 2023

3.3.1.2. Operational Cost

The operational cost is the cost spent for providing materials needed in production activities to produce broiler or carcass, because without the operational cost controlled there will no income gained by the carcass traders Pasaribu *et al.* (2021). Operational cost is the cost spent by the traders to run their business. The operational cost comprises two kind of costs namely fixed cost and variable cost. These two costs were described as follow.

a) Fixed cost

Fixed cost of the broiler's carcass business in the traditional markets in Kupang City comprises depreciation cost of cages and equipments. Average of the fixed cost was IDR7,645,903,- consist of the depreciation cost of cages was IDR1,054,444,- (51.42%) and the depreciation cost of the equipments was IDR6,591,458,- (28.74%)/ year. It was found that the fixed cost of this research was higher than that as reported by Rahma (2015). Regarding Rahma (2015), contribution of the fixed cost to production cost was only 1.33%. This difference occurred due to the differences of kinds of livestock marketed, research site, and lower number of respondent than that of this research.

b) Variable cost

The variable cost in the broiler's carcass business in the traditional markets in Kupang City covers variable cost in cash, such as feed cost, market retribution, and transportation. The result showed that average of the variable cost was IDR13,430,117/year comprises average of feed cost was IDR7,717,867±2,815,850/year and its CV was 36.48%, average of the market retribution was IDR1,003,750±159,383/year with its CV was 15.88%, and average of the transportation

cost was IDR4,708,500±1,020,718/year with its CV was 21.68%. The highest operational cost was spent for feed cost that reached at IDR7,717,867,-/year (36.48%). Comparing with Rahma (2015), it was reported that the variable cost was 98.67%. It means that the variable cost based on this research was lower than that of Rahma (2015) because Rahma (2015) was focused on broiler farm either privately and collaborative system. These systems needed higher variable cost than that of broiler carcass business in this study. In this case, the variable cost in broiler's carcass business were spent mainly for buying finisher broilers and sheltered cost.

c) Total cost

The total cost of a business covers fixed cost and variable cost Suratiyah (2015). The total cost of the broiler's carcass business in the traditional markets in Kupang City was IDR21,076,019±2,923,860/year (13.87%) comprises the fixed cost was IDR7,645,903±1,908,679/year (24.96%) and the variable cost was IDR13,430,117±2,696,129/year (20.08%). It means, the result was lower than that of Jo *et al.* (2022) because Jo *et al.* (2022) reported that the total cost spent by the traders was IDR375,752,518. This difference occurred due to the difference of research focus since Jo *et al.* (2022) was focused on broilers' traders and broilers' carcass traders. This difference can occur due to differences in research time, the number of goods and differences in prices of each unit of goods used by previous researchers and this study.

3.3.2. Revenue

The result showed that the revenue of the broiler's carcass business gained was IDR30,579,807±5,972,961/year. The main revenue was gained from the selling of broiler's carcass. Then, the additional revenue was gained from selling edible non carcass products such as heart, liver, gizzard and intestine. Average of the additional revenue was IDR5,195,044±1,257,780/year. Therefore, the total revenue gained was IDR35,774,852 ± 6,467,274/year. The total revenue consists of the main revenue was IDR30,579,807,-/year and the additional revenue was IDR5,195,044,-/year. This revenue gained was lower than that of the revenue of collaboration broiler farm system as reported by Rahma (2015) which reached at IDR56,402,002/raising period. Suwianggadana *et al.* (2013) supported that the advantage of the collaboration system of raising broilers was the

broiler's price has no influence to selling number of broiler at harvest time. The difference of revenue due to the difference of research focus, because Rahma (2015) focused on life broiler produced by collaboration system, on the other hand this research was focused on the broilers' carcass traders in the traditional markets in Kupang City.

3.3.3. Income

Revenue is obtained from all revenues from the business of selling broiler chicken carcasses minus production costs expressed in Rp/year Aiba *et al.* (2018). The broiler's carcass business in the traditional markets in Kupang City gained an average of income reached at IDR14,698,832./year. In summary, the cost, revenue, and income of the business could be seen on **Table 3**, showed that the average of income gained was IDR14,698,832/year (69.74%). Rahma (2015) found that in collaboration system of broiler's farm, the average of income was 12.26%/raising period. The difference faced due to the difference of broiler's farm system for broiler production, while this study was focused on carcass selling.

4. Conclusion

Based on the result and discussion, it can be concluded that: The total operational cost spent in the business of selling broiler carcass was IDR21,076,019/year (37.26% of the total operational cost). The revenue gained by the broilers' carcass traders at traditional markets in Kupang City was IDR35,774,852 (100%). The income gained by the broilers' carcass traders at traditional markets in Kupang City was IDR14,698,832 with productivity of capital was 69.74%.

Therefore, it can be recommended that the broiler chicken carcass traders in the traditional market of Kupang City can improve carcass quality management, promote the carcass produced to consumers, and expand marketing networks by using digital marketing through social media so that the business they run can provide greater profits.

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