Marketing margin of qurban beef

A H Daulay¹, A Sadeli*¹, F Hasan¹ and M Khaliqi²

¹Animal Husbandry Department, Faculty of Agriculture, Universitas Sumatera Utara, Medan, Sumatera Utara, Indonesia.
²Agribusiness Department, Faculty of Agriculture, Universitas Sumatera Utara, Medan, Sumatera Utara, Indonesia.

E-mail: *achmadsadeli@usu.ac.id

Abstract. Increased selling prices for qurban cattle can be indicated because the marketing channels for qurban cattle are relatively long due to increased marketing margins obtained by each marketing institution. Marketing channels can be said to be efficient if every marketing institution marketing function optimally. The purpose of this study was to identify efficiency of qurban cattle marketing channels in Deli Serdang Regency. The technique of drawing respondents is done by snowball sampling. Respondents used in this study consisted of 3 farmers, 9 traders and 5 wholesalers. The study was conducted in Deli Serdang Regency. Data were analysed by using the margin share, farmer share and R/C to see the efficiency of marketing channels. The results showed 4 channels of qurban cattle marketing in Deli Serdang Regency. The whole marketing channel is considered efficient because it has a farmer share value above 50 percent so that an increase in selling value can still be felt by qurban cattle farmers.

1. Introduction
Qurban is a form of religious deeds carried out by Muslims [1]. Indonesia as a country with the largest Muslim population is a potential market for ruminant animals. Ruminant animals commonly used for qurban are cattle, goats and sheeps. The need for qurban animals in Indonesia is increasing every year. In 2018 recorded 1,504,588 heads, with details of 462,339 head of cattle, 10,344 buffaloes, 793,052 goats and 238,853 sheep. This value has increased by 5 percent from the previous year. Cattle are qurban animals that are in demand by qurban organizers so the growth of qurban cattle is relatively greater compared to other qurban animals.

Growth in demand for qurban animals and the increase in the price of qurban animals showed qurban animals market potential is high. The price per part of qurban cattle is 1,800,000 IDR - 1,900,000 IDR in 2018 and in 2019 it increased to 1,900,000 IDR - 2,050,000 IDR/part. Suppliers of qurban animals for urban areas are usually located in rural areas. As an example for the city of Medan, cattle qurban in the supply of district on the outskirts of the city of Medan as of Deli Serdang. The increase in the selling price of qurban cattle can be indicated because the channel of qurban cattle trading system is relatively long thus increasing the marketing margins obtained by each marketing institution [2].

Marketing of agricultural products especially livestock has a complex phenomenon [3]. The involvement of a large number of marketing agencies in the qurban cattle marketing process and farmers’ behaviour is a major factor influencing how much of a marketing margin a farmer will have.
Marketing margin is a result of demand and supply factors (price), the cost of business administration and the degree of competition of channel trading system [4]. In addition, marketing margins describe all costs arising from all activities related to marketing processes such as processing and transportation to move products from producers to end consumers [5]. An entrepreneurial channel can be said to be efficient if each merchant agency performs the business function optimally. Functions performed marketing system will increase the added value of the commodity being traded. So the purpose of this study is to identify the efficiency of the qurban cattle trading channel in Deli Serdang Regency.

2. Materials and methods

2.1. Data collection
This study will use primary data which is the result of interviews from farmers, agents and broker who are respondents of the study. The technique of drawing respondents is done by snowball sampling. Snowball sampling is a technique for taking respondents in a rolling manner from the first respondent to the next respondent and the number of respondents will continue to grow in line with the information obtained by the previous respondent. Snowball sampling was used in the study that presents a network or chain of sustainable relationships. Respondents used in this study consisted of 3 farmers, 9 traders and 5 wholesalers. The study was conducted in Deli Serdang. This research area selected by purposive sampling because these two districts is a buffer area of Medan and qurban cattle producer.

2.2. Data analysis
Data from the interviews were analysed by observing the merchant agencies that make up the qurban cattle trader channel. Trading institutions have an important role in distributing qurban cattle from farmers to consumers, namely the qurban committee [6]. Channel marketing system greatly affect the efficiency of the channel marketing system. The identification of qurban cattle trading system is analysed descriptively by describing the condition of the qurban cattle marketing channel in Medan City. Then the marketing channel analysis is done by considering the value of marketing margins. Marketing margins will reflect how much profit each marketing agency is making the value of marketing margins can be obtained through calculations:

\[ M_i: \Psi_i - \Pi_i \]  
\[ M_i: \Psi_i - (\Pi_i - \Gamma_i) \]  
\[ L_i: \Psi_i - (\Pi_i - \Gamma_i) \]

Information:
- \( M_i \): Marketing channel margins at marketing institutions i (IDR/ Head)
- \( \Psi_i \): Selling prices at marketing institutions i (IDR/ Head)
- \( \Pi_i \): Buy price at marketing institutions i (IDR/ Head)
- \( \Gamma_i \): Marketing costs at marketing institutions i (IDR/ Head)
- \( L_i \): Profit at marketing institutions i (IDR/Head)

Furthermore, it is analysed how much Farmer’s share gained by qurban cattle farmers. Farmer's share is an analysis to calculate the size of the portion that will be obtained by farmers by calculating the ratio between prices at the farm level and prices at the end consumer level [7]. The value of the farmer’ share will show the efficiency of the qurban cattle channel in Medan City.
Information:
Fs: Farmer’s Share (%)
 pf: Prices at producer/farmers level (IDR/ Head)
 pr: Prices at the consumer level (IDR/ Head)

Besides using the farmer's share, to determine the efficiency of a marketing channel then calculated the amount of the value of R / C or Revenue and Cost Ratio. R / C is a calculation by comparing the value of revenue with marketing costs incurred by each marketing institutions.

\[
\frac{R}{C} \times 100% \tag{5}
\]

Information:
R/C: Ratio R/C (%)
R: Income (IDR/Head)
C: Marketing costs (IDR/Head)

3. Result and discussion
The majority of qurban cattle marketing channels in Medan City are supplied from several districts which are located relatively close to Medan City such as Deli Serdang Regency. Broadly speaking, the institutions that play a role in the process of marketing qurban cattle consist of farmers, large district agents, traders, broker and qurban committees. In summary the marketing channels in Deli Serdang Regency are illustrated in Figure 1.

**Figure 1.** Qurban cattle marketing channel in Deli Serdang Regency

Information:
- Qurban cattle marketing channel in Deli Serdang Regency:
  - Channel I: Farmers – Qurban Committee
  - Channel II: Farmers – Wholesaler – Qurban Committee
  - Channel III: Farmers – Broker – Retailer – Qurban Committee
  - Channel IV: Farmers – Broker – Qurban Committee

In general, there are 4 qurban cattle marketing channels in Deli Serdang Regency to Medan City. The production process is run by farmers on average performed during 12-18 months. Qurban cattle farmers will do the feeding, vaccines and medicines. Qurban cattle farmers will provide feed, vaccines
and medicines. While both broker, wholesaler only provide feed, vaccines and medicines about 6 months before qurban cattle are sold to the next marketing institution.

Qurban cattle farmers in Deli Serdang Regency have the freedom to choose marketing channels that are more profitable for farmers. This condition can be seen in the marketing channel of qurban cattle in Deli Serdang Regency which has 4 channels that can be selected by farmers which channel gives more benefits to the farmers. In the qurban cattle marketing channel, breeders also have the option to sell directly to end consumers (qurban consumers). So that it can provide more value to farmers. However, the majority of farmers selling through large agencies and qurban committee prior to final consumers.

| No. | Costs                   | Farmers  | Broker  | Wholesaler |
|-----|-------------------------|----------|---------|------------|
| 1   | Labour                  | 466,667  | 104,030 | 145,805    |
| 2   | Feed                    | 1,400,000| 200,000 | 674,309    |
| 3   | Medicine                | 19,000   | 83,428  | 104,638    |
| 4   | Transportation expense  | 100,000  | 100,000 | 70,000     |
| 5   | Depreciation expense    | 25,000   | 100,210 | 238,333    |

Table 1 shows the amount of costs that must be incurred by the marketing institution in the marketing process of 1 qurban cattle in Deli Serdang Regency. The cost of labour, feed and transportation expense of wholesaler have a smaller value than others. The number of qurban cattle managed by wholesaler increases the marketing efficiency of wholesaler so that the cost per qurban cattle becomes smaller. As with the cost of medicines and shrinkage where large agencies have a higher value when compared with the others. This value indicates that wholesaler carry out intensive production processes which use medicines/vaccines and drums with relatively large sizes. Because the number of qurban cattle is also higher compared to other marketing channels.

Table 2 shows the margin share and profits that each marketing agency has on the marketing channel. Marketing margin is the difference between the buying price and the selling price of a marketing institution. Marketing costs include feed costs, labour costs, depreciation costs, transportation expense and medicine costs. This is because every marketing agencies before making a sale to institutions will further advance the process of fattening cattle. As an example for wholesaler and broker usually have 6 months cattle fattening time, retailer are usually relatively shorter than wholesaler and broker ranging from 2-3 months to the fattening process.

The largest value of the margin share is found in the second channel, namely farmers selling to wholesaler and then to the qurban committee. Margin share in the can by a wholesaler Rp. 3,800,000/head further if marketing costs are deducted by the profits earned by wholesaler worth 1,198,700 IDR/head. This advantage in the can after the agent process fattening qurban cattle for 6 months, meaning that if converted to a monthly income of wholesaler gets 199,783 IDR/head/month.

The results of this study indicate the highest farmer share when farmers sell directly to the qurban committee. However, these three other marketing channels are still considered relevant to the choice of marketing channels for farmers this is because the value of the share farmer is still above 50 percent [8], [9]. This relatively high farmer share value shows that qurban cattle farmers in Deli Serdang Regency get more benefits from each chosen marketing channel. Either in the form of market information as well as the guarantor of the buying price.

R/C value greater than 1 will indicate the marketing activities carried out by each marketing institution provide benefits. From Table 2 shows each marketing channel has a value of R/C is greater than 1 so that any costs arising from marketing activities capable covered by profits earned by each marketing institution, so it can be said that the marketing channel efficiently runs the marketing process. Marketing channels farmer - wholesaler – qurban committee can be said to be more efficient.
when compared to other marketing channels. This is because the fattening process carried out on a large scale is also already relatively efficient with others so that the marketing process can also run efficiently.

| Table 2. Marketing margins of every qurban cattle marketing institution in deli Serdang Regency (IDR/Head) |
|---------------------------------------------------------------|
| **Marketing Institution** | **Marketing Channels** |     |     |     |
| **Farms** | | | | |
| Selling Price | 13,500,000 | 10,000,000 | 10,000,000 | 10,000,000 |
| **Broker** | | | | |
| Buying price | 10,000,000 | 10,000,000 | | |
| Selling Price | 14,000,000 | 12,000,000 | | |
| Marketing Margin | 4,000,000 | 2,000,000 | | |
| Marketing Costs | 1,972,000 | 657,000 | | |
| Profit | 2,028,000 | 1,343,000 | | |
| **Wholesaler** | | | | |
| Buying price | 10,000,000 | | | |
| Selling Price | 13,800,000 | | | |
| Marketing Margin | 3,800,000 | | | |
| Marketing Costs | 1,198,700 | | | |
| Profit | 2,601,300 | | | |
| **Retailer** | | | | |
| Buying price | | | 12,000,000 | |
| Selling Price | | | 14,000,000 | |
| Marketing Margin | | | 2,000,000 | |
| Marketing Costs | | | 700,000 | |
| Profit | | | 1,300,000 | |
| **Qurban Committee** | | | | |
| Buying price | 13,500,000 | 13,800,000 | 14,000,000 | 14,000,000 |
| **Farmer Share (%)** | 100 | 72.4 | 78.5 | 71.4 |
| **R/C** | - | 2.17 | 1.03 | 1.94 |

4. Conclusions
Qurban cattle marketing channels in the Deli Serdang as much as 4 channels. Overall considered efficient marketing channel due to have a share farmer who value above 50 percent, so the increase in sales value can still be felt by the qurban cattle farmers. The results of the R/C value which can also illustrate the efficiency of the marketing channel can be concluded that the second marketing channel, which is farmer-wholesaler-qurban committee, is more efficient than the other four marketing channels.

References
[1] Abdullah M 2016 Qurban: Wujud kedekatan seorang hamba dengan Tuhannya [Qurban: The form of a servant's closeness to his Lord] J. Pendidik. Agama Islam 14 1 109–16
[2] Balkis S and Kosasih 2016 Tataniaga Agribisnis Cabai Merah di Kecamatan Tenggarong Seberang [Marketing and to calculate the margin marketing of red chili agribusiness in Tenggarong Seberang subdistrict] J. AGRIFOR 15 1 101–10
[3] Kalita B 2017 Marketing Efficiency, Price Spread, Share of Farmers in Case of Horticultural Markets of Assam International J. o 2 8 65–72
[4] Marsh J M and Brester G W 2004 Wholesale-retail marketing margin behaviour in the beef and
Acknowledgments
The research was funded by the Universitas Sumatera Utara in accordance with the Talenta USU Research Implementation Contract in Fiscal 2019 Number: 4167 / UN5.1.R / PPM / 2019 dated April 1, 2019.