An analysis of marketing channels on broiler carcass in Jember Regency

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Abstract. The aim of the study was to determine the pattern of marketing channels in the broiler carcass in Jember Regency. Data collected includes primary data and secondary data. Analysis of the data used by the marketing channel pattern. Primary data is collected from farmers selected as samples using a combination of interview methods, submitting a list of questions that have been prepared. Secondary data comes from literature, or scientific publications Descriptively discussed and tested the marketing margin for each marketing channel pattern tested with an independent sample t-test. The pattern 1 and 3 and the pattern 2 and 3 were a difference between each pattern. While pattern 1 and 2 was no difference between each pattern. The highest marketing margin was pattern 3 (IDR 12350).

1. Introduction
The poultry sector, especially broiler chickens is still the top priority meet animal protein needs. According to Rizaldi (2010), broiler meat contains a composition of good nutritional value and as a source of food ingredients contains animal protein. The consumption of broiler meat is increasing importance in Indonesia and per head consumption is still rising. The broiler is one of the livestock that has a good prospect on a small or large scale. The advantages of broilers compared to other types of livestock are the characteristics of broilers that have characteristics of rapid growth, the efficiency of ration use, short harvest periods, and soft fibrous meat. This makes the broiler chicken business to be one of the livestock businesses that have a significant role in the economy.

In Indonesia, broiler population in 2017 was 1698369, in 2015 was 1,528,329, in 2016 was 1,632,568 and the average of price of broiler carcass in 2014 about IDR 28976 per kg, in 2015 increased 3.47% to IDR 29981 per kg. Furthermore, in 2016 increased 4.51% to IDR 31334 per kg. According to the East Java Animal Husbandry Office statistics in 2015, the production of broiler chickens in Jember Regency experienced a rapid increase from 7,689,080 in 2014 to 12,120,036 in 2015. But in 2016 broiler production decline to 11,932,763 and in 2017 decreased to 11,851,934. The phenomenon of decreasing production occurs cannot be separated from three factors that influence the success of broiler livestock businesses, such as day-old chick, feed, and management.

Broiler meat relatively easily to accept, because of the taste factor, production speed, and cost. Broiler meat is also almost there are no challenges from social or religious this product. So that the chicken cultivation business opportunity broiler is very broad and worthy doing. After the harvesting process, broilers are ready to be marketed. In a broiler farm business, marketing is defined as the
activity of selling or bringing broiler chickens from farms to table. In Indonesia, broilers are usually marketed in the form of whole carcasses, namely the body parts of chickens slaughtered and without the visceral organs, legs, neck, head, feathers, and blood.

The broiler is one of the poultry commodities that contribute greatly to the food of the Indonesian people. Consumption of broiler meat increases every year because the price of chicken meat is affordable for all people. The economic characteristics of broilers are rapid growth, as meat producers with low feed conversion and ready to be cut at a relatively young age [1]. Broiler harvesting is carried out at the age of 4 to 6 weeks with a weight of 1.2 to 1.9 kg [2]. The growth of broiler is fairly fast around 30 days ready for harvest.

Broiler carcasses are the body parts of chickens slaughtered without the stomach, legs, neck, head, hair, blood. Percentage of the carcass is often used to assess meat livestock production [3]. According to [4], [5], and [6] based on the method of handling, broiler carcasses are divided into: fresh carcass (the carcass that has just been processed for no more than six hours and does not experience further treatment), fresh cold carcass (fresh carcass which is immediately cooled after processing so that the temperature in the meat becomes between 4-50ºC), frozen carcass (carcass that has undergone a freezing process), then [7] explained carcass weight is strongly related to life weight and body weight gain. Body weight gain is directly caused by the availability of tissue-forming amino acids. The consumption of protein is directly related to the growth process, therefore the management of using feed ingredients that contain protein that is required for amino acid intake by the body [8]. The percentage of broiler carcasses varies between 65-75% of body weight, the heavier the chicken is cut, the higher the carcass [9].

Marketing according to [10] is a social process where both individuals and group involved in the process get what (product or service) they need and want by creating, offer, and exchange products or services value with other parties. Marketing is an activity carried out by individuals or groups to market, offering quality products to other parties in order to benefit [11]. Marketing can also be interpreted as an activity carried out to strive for a product to be accepted in the market and favored by the market [12]. Marketing channel is a series of interdependent and involved organizations in the process to make an item or service ready to be used or consumed [11]. Marketing channel is one of the important factors to increase sales volume which refers to the ease for consumers to access and get it.

A marketing channel is an intermediary group that deals with each other and which distributes products from producers to consumers. Marketing channels on both broiler and domestic chicken farms tend to belong. This is due to marketing channels starting with farmers, collectors, retailers, and then to consumers. Marketing margin is the price financed by the consumer minus the price received by the producer. High and low marketing margins are used to measure the efficiency of the marketing system. The greater the marketing margin, the more inefficient the marketing system [13]. For example, the price of broiler paid by consumers is IDR 23000/Kg, the producer receives IDR 20,000/Kg, the marketing margin is IDR 3000.

The price level that must be paid by consumers and accepted by producers depends on the prevailing form and structure, both competitive markets, monopsonic markets, oligopsonistic markets, monoply markets, and oligopoly markets. The length of the marketing channel also often leads to less efficient marketing. The marketing margin is high due to the small amount the producer receives. In the broiler carcass marketing process a marketing channel will be formed which requires marketing costs. Marketing costs affect prices at the consumer level. Marketing costs will be higher in line with the length of the marketing process. Marketing costs can be measured using marketing margins, namely the difference in prices paid by end consumers at prices received by producers [14]. Conducive marketing performance will provide incentives for farmers to produce and encourage the adoption of technology by farmers, and increase the share of prices received by farmers. A conducive policy can increase production, distribution, product development and proportional incentives for traders and welfare actors.

An efficient trading system is the arrival of the product to the end consumer according to the place, time, and form desired by the consumer at the lowest cost and the fair distribution of the price paid by
the end consumer to all parties involved in the production and trading activities [15]. The size of the marketing margin depends on changes in marketing costs, the benefits of the intermediary trader, the price of the final consumer, and the price received by the producer. Based on the identification and formulation of the above problems, the purpose of this research studies carcass marketing distribution channels of broiler carcass in Jember Regency.

2. Materials and Methods

The study was conducted in the downtown of Jember Regency (Pasar Tanjung Market, Kepatihan Market, and Pagah Market). Selection this location is based on the consideration that in downtown is a production center of broiler carcass. Respondents as the subject of this research were 136 respondents. Respondents have sampled consists of farmers, retailers, wholesalers, and related parties broiler chicken farms. Various considerations like time, energy and constraints cost, then interview the element the sample is carried out in depth on respondents who really understand broiler carcass trading problems.

The data that will be used in this study is primary and secondary data. Primary data is collected from farmers selected as samples using a combination of interview methods, submitting a list of questions that have been prepared. Secondary data comes from literature, or scientific publications both private and government related to broiler chicken farms and reports from institutions or agencies that support, such as Department of Animal Husbandry, Central Bureau of Statistics and Department of Agriculture.

Data collected includes primary data and secondary data. Marketing channels are discussed descriptively and marketing margins are used as formulas following.

3. Results and Discussion

3.1. Marketing channels pattern

The efficiency of the business is one of the important components of creating a marketing system that can benefit many related parties in the broiler business, such as breeders, traders, and consumers. Through the implementation of efficient trading will ultimately affect the formation of price levels. The trading arrangements that occur in a commodity cannot be separated from the influence of the market structure that occurs.

Marketing channels are one aspect of marketing. Distribution can also be interpreted as a marketing activity that seeks to facilitate and facilitate the delivery of goods and services from producers to consumers. Marketing channel based on its intensity is divided into three such as intensive form that the type of channel that utilizes many traders big and small, a selective form, which is a type of distribution that only uses a few wholesalers and a small number of retailers, and exclusive form, which is a distribution channel that only involves one intermediaries in certain community environments to handle products. Channels that we currently encounter can be divided into two: direct and not direct channels. Direct channel from manufacturer to consumer. Usually, only a few items are marketed directly. Indirect channel, which is divided into two, from manufacturer to retailers to consumers and from producers to wholesalers to retailers to consumers.

Marketing channels play a role in marketing horticultural agricultural commodities such as farmers, traders, intermediaries or wholesalers and retailers [16]. Problems that arise in the marketing system of horticulture were marketing activities that have not run efficiently [17], in the sense that they have not been able to deliver agricultural products from producers to consumers at low cost and have not made fair distribution of remuneration from the overall price of the last consumer to all parties participating in the production and marketing activities of these agricultural commodities. Fair distribution in this context is the distribution of remuneration for marketing functions according to the contribution of each marketing institution that plays a role.

The marketing channel is every series of companies or people who take part in distributing goods and services from producers to consumer, distribution channels can be divided into several types, such as direct distribution channels, in this distribution entrepreneurs try to distribute goods that consumers
buy directly where consumers live and indirect distribution channels, in this case, the employer uses outsiders to help to channel goods to consumers [18].

In addition, the trade in broiler carcass channels is influenced by the periodic products produced and the producers are relatively scattered. As a consequence, the price of chicken meat is strongly influenced by supply fluctuations. There are three channels in the broiler carcass marketing system such as Pattern 1 (farmers-consumers), Pattern 2 (farmers-retailersconsumers), and Pattern 3 (farmers-wholesalers-retails-consumers). Results of broiler carcass channels are presented in Table 1.

| Pattern | Total Farmers | Percentage of Total Farmer |
|---------|---------------|---------------------------|
| Pattern I | 14            | 10.29                     |
| Pattern II | 94           | 69.11                     |
| Pattern III | 28           | 20.58                     |
| Total    | 136           | 100                       |

The results of the research on the marketing channel pattern in Jember regency were pattern 1 was 10.29%, pattern 2 was 69.11%, and pattern 3 was 20.58. In Jember, the distribution channel of broiler carcass uses more medium marketing channels (pattern 2) because of a large number of intermediary traders involved so high prices issued by consumers. According to [10] reported that marketing channels are one of the determining factors for increase sales results, the marketing channel is a delivery channel product, if the channel can be used properly and optimally, then consumers can easily obtain the product. The result was consistent with the opinion of [19] more intermediary traders have involved in marketing channels the higher the price that consumers must pay.

3.2 Marketing Margin

Marketing margin is the difference in prices paid by the producer with the price paid by the end consumer [20], included in the marketing margin are all marketing costs incurred by the marketing costs and marketing profits, starting from the producer to the consumer. Marketing margins are divided into two: marketing costs and marketing charges. Marketing costs are related to the rate of return from factors of production, while marketing charges are related to how much is received by processors, collectors and trading institutions. The trading margin consists of three types, such as absolute, percentage and combination. Absolute marketing margins and percentages can be decreased, constant and increased with increasing quantity of marketed [21]. The relationship between demand elasticity at different levels of the trading chain provides several analytical uses. Results of the marketing margin are shown in Table 2.

| Pattern | Marketing Margin (Price, IDR) | Percentage of Total Marketing Margin (%) |
|---------|--------------------------------|----------------------------------------|
| Pattern 1 | 7450                          | 25.13                                  |
| Pattern 2 | 9850                          | 33.22                                  |
| Pattern 3 | 12350                         | 41.65                                  |
| Total    | 29650                         | 100.00                                 |

The size of the marketing costs is depending on the size of the activities marketing institutions and facilities needed. Marketing costs also depend on length short of the marketing chain involved. The
size of the marketing margin is influenced by changes in marketing costs, profits of traders intermediaries, prices paid by end consumers and the price received by the producer. Besides factors, the amount of marketing margin is also influenced by the distance of the producer area with the consumer and the nature items that will add to the whole marketing costs.

Marketing margins on this research results vary depending on the distribution channel. The difference in marketing margins in each marketing channel pattern is analyzed using Different test t independent sample t-test. The results of different tests t-test the results of the pattern (1 and 3) and the pattern (2 and 3) was a difference between each pattern. While pattern (1 and 2) was no difference between each pattern.

The process of distributing carcass by intermediary traders through several the distribution stage before reaching the hand end consumers namely transportation, payment of retribution, unloading, and loading livestock. When the distance between breeders and consumers close, then costs transport can be reduced. Getting farther distance and more and more intermediaries (marketing agency) involved in marketing, then marketing costs will be higher. According to [22] the length of the short chain of marketing and the number of marketing institutions will affect the amount of marketing margin. The longer the marketing chain, the lower the efficiency received by farmers, so that prices are paid by consumers. The highest marketing margin was pattern 3 (12350), then [23] reported the longer marketing agencies are involved in the process marketing will increase the total margin and net profit obtained by the offender and the size of the marketing margin affected by changes in marketing costs, profits of intermediary traders, prices the final consumer is paid and the price received by the producer.

Conclusion

There were three patterns of distribution channels such as pattern 1 (farmers-consumers), pattern 2 (farmers-retailers-consumers), and pattern 3 (farmers-wholesalers-retails-consumers). The pattern (1 and 3) and the pattern (2 and 3) was a difference between each pattern. While pattern (1 and 2) was no difference between each pattern. The highest marketing margin was pattern 3 (IDR 12350).

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