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Submission date: 31-Mar-2023 07:25AM (UTC-0700)

Submission ID: 2052077187

File name: Vertical_Integration_of_Broiler_Industries_in.pdf (571.68K)

Word count: 4144

Character count: 22792

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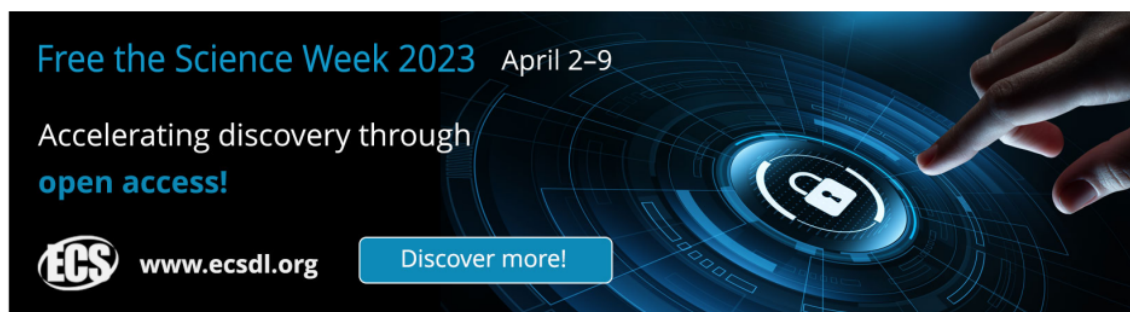
Vertical Integration of Broiler Industries in Indonesia (Analysis of Case Decisions Number 02/KPPU-I/2016)

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2

Vertical Integration of Broiler Industries in Indonesia (Analysis of Case Decisions Number 02/KPPU-I/2016)

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Abstract. This study aims to get a deeper explanation of vertical integration in the broiler industry in Indonesia. The data used is secondary data on case decisions number 02 / KPPU-I / 2016. Komisi Persaingan Usaha (KPPU) Republik Indonesia has issued a decision about the alleged violation of article 11 of Act Number 5 of 1999 related to the regulation of broiler production in Indonesia. The data obtained were analyzed by descriptive method. The results obtained are (1) there are 20 large companies that are directly related to the broiler trade industry, (2) broiler industry products are DOC, feed, vitamins and drugs, raw materials for poultry feed and carcasses, (3) the business category in the broiler trade industry is integrated business, semi-integration business and non-integrated businesses. Integration business consists of vertical integration and horizontal integration. Vertical integration is a business that has a series of production processes from upstream to downstream. Semi-integration business is a business that only has more than one production line but does not control the business from upstream to downstream. Non-integration business is a business that only has one production process. Integration business has a dominant market share and can influence the price maker. It was suggested that the Government monitor more closely the large companies that carry out integration so as not to collude and form a monopoly market.

Keywords: business integration, vertical integration, broiler industry

1. Introduction

Broiler is a superior breed of chicken produced by crossing species / chicken breeds that have high productivity, especially in producing chicken meat. In the development of business growing and developing very rapidly, businesses are not only farmers who do chicken breeding (DOC FS), but up to harvest live chickens (Live Bird).

The geographic market for businesses that supply DOC FS is to the entire territory of the Republic of Indonesia, and does not divide the marketing area of DOC FS. Regulatory related to marketing permits, the company is not restricted in its territory regionally, so it is free to do marketing both inside and outside its domicile. There is no absolute behavior of barrier to entry by entrepreneurs to limit marketing between competitors, so buyers from any region are free to choose the market.

Vertical integration is a process to internalize transaction internalization through merging different stages like production, distribution, etc [1]. One activity that can encourage economic activities of the



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coastal communities is the development of integrated enterprises between the aquaculture and fishing with processing. All of the processing that is integrated with the cultivation and fishing provides the benefits to coastal communities such as integration with the enterprises of catfish crackers, seaweed dodol with seaweed cultivation, curing fish, dried fish and fish ball producers. The integration of these enterprises creates increased in revenue through the increases of value added, price of fresh fish and price stability of the fish [2].

The research was investigated the correlation between the type of integration with the corporate performance in financial perspective, customer perspective and internal business process perspective. The result of the research, there was strong correlation between the type of integration quality of integration and industry performance [3]. The results of the study Mulyaningsih and Karseno [4] entitled vertical competence on efficiency and competition, discussed the motivation of vertical integration in the clove cigarette industry to profit in the long run is positive. Vertical integration increases efficiency because by integrating margins in the industry can reduce prices down or profit increase.

An industry in terms of carrying out its business can be influenced by vertical integration behavior. The company's objectives for vertical integration include efficiency, certainty of raw materials and increased access to consumers and reducing or eliminating competitors in the market. This study aims to get a deeper explanation of vertical integration in the broiler industry in Indonesia.

2. Methodology

The study uses secondary data in the form of ¹⁷ the Business Competition Supervisory Commission (*Komisi Pengawas Persaingan Usaha* or KPPU) with descriptive analysis which is a research method consisting of making a description, general picture or systematic drawing. Factual and accurate about facts, the nature of interrelated relationships. This type of descriptive research tries to find answers about cause and effect relationships by analyzing the causes or considering a particular phenomenon [5] [6].

Komisi Pengawas Persaingan Usaha (KPPU) Republik Indonesia [7] has issued a decision about the alleged violation of article 11 of Act Number 5 of 1999 related to the regulation of broiler production in Indonesia. Breeder Cutting or culling of Broilers Parent Stock by Breeders in 2015 in Indonesia. Breeders violate Article 11 of Law Number 5 Year 1999 which states: "Businessmen are prohibited from making agreements, with business competitors, who intend to influence prices by regulating the production and or marketing of goods and or services, which may result in monopolistic practices and or unfair business competition"

The geographical market for supplying DOC FS is to the entire territory of the Republic of Indonesia, and does not divide the marketing area of DOC FS. In terms of regulations related to marketing permits, companies are not limited to regional areas, so they are free to do marketing both inside and outside their domicile. No absolute barrier to entry behavior was found by entrepreneurs to limit marketing between competitors, so that buyers from any region were free to choose the desired market.

3. Result and Discussion

Broiler Industry

In Indonesia there are at least 20 companies, 14 among them big companies directly related to the broiler industry, namely:

- 1) Company A is engaged in purchasing, importing, as a distributor and retailer of chicken, domestic chicken, livestock and its products, livestock products and food, animal food supplementary materials including veterinary medicines and hatchery companies.
- 2) Company B is engaged in breeding and breeding of mains, day old chicks and all other types of birds.
- 3) Company C is engaged in animal feed, broiler and laying Day Old Chick (DOC), broiler duck, animal feed raw materials, industrial goods, fisheries and related products, slaughtered goods

and goods produced by processing and preservation whether produced by themselves or not, which include import and export trade, between islands / regions and local and intersular for goods produced by themselves and products of other companies.

- 4) Company D is engaged in poultry farming, including the cultivation of ducks, geese, pigeons, ostriches, laying hens and breeding of chicken breeds including the Grand Parent Stock, Parent Stock and Day Old Chick (commercial chicken) and pure line and related business activities.
- 5) Company E is engaged in agriculture, plantation, animal husbandry, timber, forestry, fisheries which includes fishing, fish farming, agricultural cultivation, plantations, livestock, timber, forestry and the sale and collection of trade in fisheries, agriculture, plantations, livestock, timber, forestry.
- 6) Company F is engaged in chicken farming.
- 7) Company G is engaged in importing Grand Parents Stock (GPS) and selling its products to markets in Java and Kalimantan.
- 8) Company H is a company that produces Grand Parents Stock (GPS) and Final Stock farm.
- 9) Company I is engaged in agriculture, fisheries, both land, sea and shrimp, livestock, timber and rattan, marine.
- 10) Company J is engaged in industry in general, including the animal feed industry, chickshatchery industry.
- 11) The K company is engaged in chicken breeding and broiler farm.
- 12) Company L is engaged in animal husbandry, especially poultry, aquaculture including breeding and cultivation of shrimp and seaweed and several other business fields.
- 13) M and N companies are engaged in chicken farming.

Most companies engaged in poultry have many other activities, both directly related and not directly related to poultry. The market share showed in **Table 1**.

DOC and Carcass Products

Chicks are a key factor in the success of the broiler industry. Day Old Chick Final Stock (DOC FS) is a term for one day chicks. DOC FS is the result of a Hatcher (PS), PS DOC was raised to the age of 25 weeks then will continue to enter in the production age of up to 65 weeks. DOC FS received by breeders is the last level of the chicken strain or commonly called Final Stock (FS). DOC FS is the result of selection so that the final result is truly productive and of high quality. DOC FS is an input cost for businesses engaged in cultivation to become live chickens ready to cut (live birth). The scheme of DOC Parent Stock up to DOC Final Stock showed in **Figure 1**.

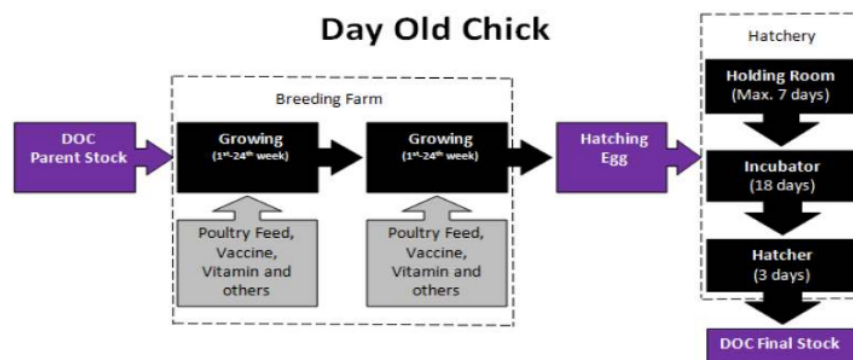


Figure 1. The scheme of DOC Parent Stock up to DOC Final Stock

Carcass is the final product in the broiler industry. Based on its characteristics, carcass products are final products sold both in traditional markets and modern markets. To get carcass products, live chicken is ready to cut then cut and cleaned until it produces carcass chicken products. Business in carcass sector do not carry out such a long process as DOC. Business people profit based on the difference between the purchase price and the selling price. Consumers on carcass products are final consumers because in general the chicken carcasses purchased are immediately cooked for consumption. Based on the purpose, carcass products are very different from DOC products. Carcass products are products that are distributed directly from slaughterhouse to merchant businessmen whose purpose is to have these products sold to end consumers. Price of 1 Kg carcass is around Rp 28,000 to Rp. 40,000 (2016).

Table 1. Market share of GPS in 2015

Number	Company	Market share (%)
	B	35
16	C	10
	D	10
	E	8
	F	5
	G	4
	H	4
	I	3
	J	7
	K	4
	L	2
	M	4
	N	1
		3

Source : Case Decisions Number 02/KPPU-I/2016

According to the decision of case number 02 / KPPU-I / 2016, breeders are more related to brokers, and more prices are determined based on conditions of supply availability in the market and consumer demand. Independent farmers compete directly with integrated companies that produce more. Integrated companies are easier to influence market prices. Independent breeders act as price takers. Broker has a role in selling chicken meat. The broker has information at the farmer level, as well as information about market needs. Thus, the broker will always be easy to get profits, while the basket / retailer is very large, acting as a price taker. Independent farmers have suffered losses in recent years, mainly due to very high dependence on integrated companies as well as competition that is not comparable in the chicken meat market, so that the losses experienced by independent farmers can be a disincentive for independent farmers and potential breeders.

Vertical Integration

Business in the poultry trade system, especially for broilers, can be divided into three categories of businesses, namely integration business, semi-integration business and non-integration business.

- Integration business is a business that has a series of production processes from upstream to downstream. Integration business having a dominant market share can usually influence the price maker. The production process in the chicken industry from upstream to downstream can be seen based on the business as follows: hen breeding / Grand Parent Stock to Parent Stock (Breeding Farm that produces PS DOC), commercial broiler breeding (Breeding Farm that produces DOC FS), feed business , vitamins and medicines, poultry feed raw material business, commercial broiler farm business and chicken cultivation business in partnership

with the provisions made by the Nucleus Company, and businesses that open live broiler bases in traditional markets, and seek processing ready-to-eat chicken.

- b) Semi-integration business is business that only has businesses in more than one series of production but do not control businesses from upstream to downstream. This business usually still has a dependency with business on the upstream and downstream sides. An example of a semi-integrated business is a farmer who also has a feed business, but does not have a GPS parent, so he still has to buy DOC PS from other business and does not have a slaughterhouse resulting in live chicken production directly sold to the market or to the slaughterhouse chicken.
- c) Non integration business that only have one production process. This business has no bargaining power in the market and tends to be a price taker. Business in this segment is the largest business operators by number. Examples of business in this sector are independent chicken breeders, brokers, *pelapak* and others.

Integration businesses are generally in the form of legal entities and have good corporate organizations; even 3 out of 12 companies are integration businesses that have become publicly listed companies. The number of integrated business is less than that of semi-integrated business and non-integrated business. The vertical market not being integrated, there is a tendency for profit margins not to be well distributed in every competitor in the distribution chain [8].

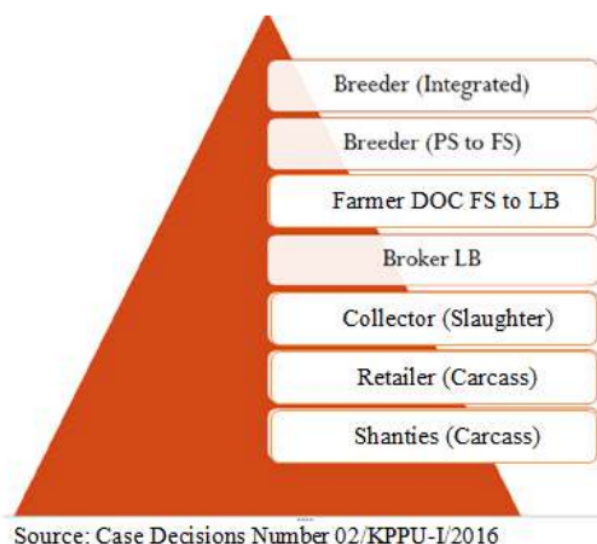


Figure 2. Pyramid Broiler Company

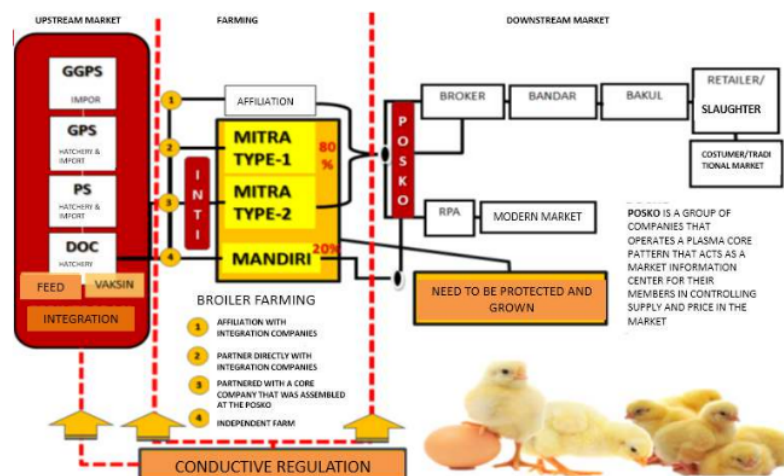
Broiler industry is an industry that is concentrated in several businesses. Industry players conduct their business by forming vertical integration from upstream to downstream. While on the other hand, independent farmers are highly dependent on integrated companies as a source of production inputs, while on the downstream side, competing in the same market that is the chicken meat market. In general, businesses in the poultry trade system can be described in **Figure 2**.

Based on **Figure 2**, it appears that integrated companies are at the peak level of the pyramid with a small number of business then followed by breeder business. Breeder business can be divided into two categories. First, Breeder is a subsidiary of a holding company that has an integrated business. Breeders in this category usually have GPS so that the selling products are DOC PS and DOC FS. Second, Breeders which only produces DOC FS. Breeders in this category do not have GPS so it is

highly dependent on hatchery businesses that produce DOC PS. DOC PS was later raised to produce new DOC FS and then sold. Breeders in the second category are generally included as semi-integrated business due to the fact that breeders have a cultivation business of enlarging DOC FS to LB. At the next level there are business breeders / cultivators. The level of the breeder business up to the last level of the business is a business that is generally not integrated, except for farmers who have a partnership. Farmer businesses are in dire need of good supply of DOC FS, feed, vitamins and drugs from businesses at the top level.

The product of the breeder business is Live Bird. The Live Bird harvest is then sold by the breeder business to the broker business (dealer or intermediary). Brokerage is business people who are usually individuals. While brokerage may concurrently become a broker and / or only become a dealer.

The last level is retailer and/ or *pelapak*. Retailers and/ *pelapak* are business at the final level because the products they sell are carcasses which will be consumed by end consumers in the broiler industry. The difference between retailers and *pelapak* lies only in the large number of chickens they sell. Retailers have a larger amount that usually gives *pelapak* to be sold in traditional markets.



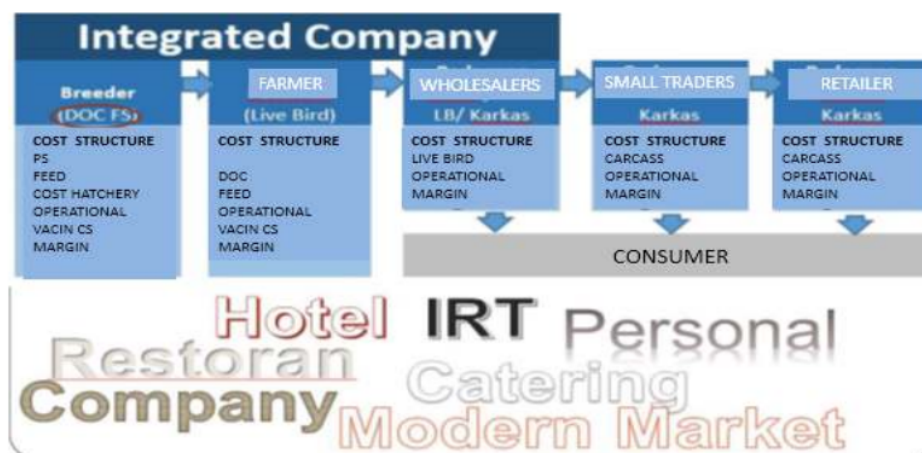
Source : Case Decisions Number 02/KPPU-I/2016

Figure 3. The scheme of Broiler Marketing in Indonesia

Integration companies control business processes from upstream to downstream, so integration companies should be more efficient in providing the selling price of live chickens at the consumer level because they do not cross the long supply chain. There is no policy set by the Government related to the protection of independent farmers, in the form of guarantees of supply of DOC and feed.

Integrated supply chain practices enhance the development of better quality and innovative products. It also help firms in improving their set up processes by reducing costs and delivery timings to the end users that effectively influence competitive strategies [9]. Such vertical integration strategies are capable of avoiding the intermediate channels of middlemen, raising direct benefits by enhancing yield and quality and producing internal economies [10].

Business in the broiler industry can be divided into several businesses, namely horizontal business and vertical business. Horizontal business, namely: (1) chicken feed business, (2) drug and vitamin business, (3) facility and infrastructure business, and (4) other equipment. Vertical business, namely: (1) parent stock business, (2) day-old chicken final stock business, (3) farming (enlargement to chicken ready for consumption / live bird), (4) brokers of live bird, (5) chicken slaughterhouses, (6) market traders / *pelapak*, (7) cold storage businesses, and (8) food processing businesses.



Source: Case Decisions Number 02/KPPU-I/2016

Figure 4. Integration of Broiler Company in Indonesia

The vertical integration of coal enterprises has positive incentives for the promotion of ICSR, financing structure and market power play a chain intermediary role in this process of incentive, in areas with high marketization process, vertical integration has more significant incentive effect on ICSR [11]. The advantages of this collaboration support sustainability both directly and indirectly. Economically, it increases the revenue while reducing the operational cost since they share some resources. It increases the productivity since the farmers get more resources which possibly have an impact on the improvement of internal process efficiency producing more yields [12]. A strategic rationale for partial backward integration is developed for a dominant firm with a competitive fringe purchasing from competitive input suppliers. A partially backward integrated dominant firm potentially can increase profit through production efficiency gains and through a lower price for externally purchased input. The optimal degree of backward integration results when the dominant firm's profit from exerting monopoly market power in the external spot market equals its profit from producing raw input internally, less the incremental cost of acquiring internal raw input production capacity [13].

Based on **Figure 4**, there is a dominant position held by integration companies. Integration companies control business processes from upstream to downstream. Integration companies should be more efficient in providing the price of live chickens at the consumer level because they do not cross a long supply chain.

Integration between different businesses is a form of mutual symbiosis and resultant outcome that produces multiple effect in the form of added value and greater employment opportunities [14]. Factors contributing to this vertical product differentiation likely include brand loyalty, differences in marketing services, and previous seed experience. The results also reveal that vertical organization influences how firms exercise market power and price goods [15].

Integration businesses also sell chickens in the form of carcasses in modern markets and traditional markets as well as in the hotel, restaurant and catering markets (HORECA) and also markets in special segments such as private companies. It is different from non-integration companies which must pass the distribution chain which only leads to the traditional market. Variable such as environment, discount price, payment procedures and facility affect impulsive buying in traditional markets [16].

Payoffs and risks increase as firms become more vertically integrated. Firms that become more vertically integrated by owning shuttle facilities are able to insure themselves with a greater possibility

of owning soybeans to ship in order to capture the arbitrage opportunities that arise compared to the limitations of purchasing soybeans as a nonintegrated firm [17].

4. Conclusion

There is a vertical integration in the broiler industry which dominates the broiler market in Indonesia. There is no policy set by the Government related to the protection of independent farmers, in the form of guarantees of supply of DOC and feed. Suggestion that the government needs to monitor more closely the large companies that carry out integration so as not to collude and form a monopoly market.

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