



STRUCTURE, BEHAVIOR, AND MARKET PERFORMANCE ON MARKETING OF PATCHIE OIL IN BUKUT VILLAGE, TERANGUN DISTRICT GAYO LUES DISTRICT

Muhammad Authar ND¹, Anwar Puteh²

¹ Faculty of Agriculture, Universitas Malikussaleh, Indonesia.

² Faculty of Economics, Universitas Malikussaleh, Indonesia.

Corresponding Author: muh.authar@unimal.ac.id

Abstract

Patchouli (Pogostemon cablin Benth) is an essential oil-producing plant which is a source of foreign exchange for the country. Indonesia is currently the world's producer of patchouli oil with a contribution of 90%, for that it is necessary to maintain market opportunities by increasing production through appropriate cultivation techniques, improving the quality of patchouli oil and developing patchouli plantings in areas that have bright prospects seen from the level of suitability, land and climate. The purpose of this study was to determine market structure, market behavior (various forms of collusion) and market appearances that occurred in the marketing of nimal oil in Bukut Village, Terangun District, Gayo Lues Regency. The data used are primary data and secondary data, for market participants, snowball sampling is used. The method used to analyze the market structure is Concentration Ratio analysis tools (Market Share, Herfindal Index and Concentration Ratio for Biggest Four or), Degree of Product Differentiation, Barriers to Market Entry and Level of Market Knowledge. To analyze Market Behavior, it is descriptively analyzed about collusion and strategies that occur. To analyze the Market Performance used the analysis tools of Marketing Margin, Share Price, and Cost and Profit Ratio. CR₄. Market share at the collector level there is an oligopoly marketing system for patchouli oil with loose concentration. The concentration of buyers in marketing patchouli oil in Bukut village, both collectors, village collectors, and representative warehouses/ wholesalers is oligopsony. The marketing structure of Patchouli Oil in Gayo Lues, at the level of collector traders is a loose oligopoly with a CR₄ value of 0.5421, at the level of a village collector it is a tight oligopoly with a CR₄ value of 0.8855, while at the warehouse representative/ wholesaler level it is a tight oligopoly with a CR value, reaching 1.00. should have a value of 1.00 is a monopoly, but because there are still three competing companies, it is categorized as a strict oligopoly.

Keywords: Patchouli Oil, Marketing Institutions and Marketing Channels

1. INTRODUCTION

1.1. BACKGROUND

Patchouli oil development in Aceh Province is a potential local resource utilization activity. This is supported by various factors, such as the suitability of agro-climatic conditions and the availability of suitable land resources. Gayo Lues Regency is a district that cultivates patchouli oil which has a total patchouli oil production of 274 tons/year, from various observations it can be assumed that the price of patchouli oil is high, but farmers only get a small part, because the profits are mostly enjoyed by traders, middlemen, and patchouli oil processing factories, as well as patchouli oil farmers in Bukut Village, Terangun District, Gayo Lues Regency, they always face these problems, especially with regard to the price and marketing of its products where both of these things greatly affect the income obtained by farmers, generally the price of patchouli oil is determined unilaterally by the company or trader, although there are many factors that determine the

price at the farmer level. Likewise regarding quality, in general, quality is determined only based on patchouli (top, middle, down), so there is no definite quality standardization.

1.2. Formulation of the problem.

Some of the main problems that will be discussed in this research are:

1. What is the market structure of patchouli oil marketing in Bukut Village, Terangun District, Gayo Lues Regency?
2. How is the market behavior that occurs in patchouli oil marketing in Bukut Village, Terangun District, Gayo Lues Regency?
3. How is the marketing channel that occurs in the marketing of patchouli oil in Bukut Village, Terangun District, Gayo Lues Regency?
4. How much is the marketing margin, the share of prices received by farmers, the share of costs and profits between marketing institutions involved in marketing activities for patchouli oil in the research area?

1.3. Research purposes

The aims of this research are:

1. To find out the market structure, on the marketing of patchouli oil in Bukut Village, Terangun District, Gayo Lues Regency
2. To find out market behavior (various forms of collusion) that occurred in the marketing of patchouli oil in Bukut Village, Terangun District, Gayo Lues Regency.
3. To find out the marketing channel, the marketing of patchouli oil in Bukut Village, Terangun District, Gayo Lues Regency
4. To find out the amount of marketing margin, share of price received by farmers, share of costs and profits between marketing institutions involved in marketing activities for patchouli oil in research blood.

2. RESEARCH METHODOLOGY

2.1. Sampling

This study uses a survey method. The sample used in this study is a sample of patchouli oil processing farmers and a sample of patchouli oil marketing institutions. The sampling method of patchouli farmers was taken by simple random sampling (Simple Random Sampling). The sample of marketing institutions involved in marketing patchouli oil in the village is determined by the snowball sampling method, namely the determination of a sample of marketing institutions based on information from producer farmers, namely to whom they sell their products, and continues at the next level where the product is marketed until the sample saturation or samples are difficult to achieve. This model is used because the target population of marketing institutions is not clearly known and difficult to approach/detect.

2.2. Determination of Research Areas and implementation time

The research location was determined purposively, namely in Bukut Village, Terangun District, Gayo Lues Regency, with the consideration that the village has high potential and productivity for patchouli and is one of the centers for patchouli oil production in Bukut Village, Terangun District, Gayo Lues Regency.

2.3. Method of collecting data

The data used in this study are primary data and secondary data. Primary data were obtained by direct interviews with farmers and marketing agencies who were selected as samples based on a list of questions that had been prepared. Secondary data obtained from the relevant agencies.



2.4. Data analysis method

This research is focused on looking at market structure (perfect market or imperfect market), Market Behavior (presence of collusion) and market performance of patchouli oil marketing channels in the area of Bukut Village, Terangun District, Gayo Lues Regency.

2.4.1. Market Structure Analysis with several approaches

2.4.1.1. Market Share

This analysis aims to determine the degree of concentration of buyers from a market area so that it can be known in general the balance of the power of bargaining power of farmers (producers) against buyers. To find out the market share of a marketing agency in a market area, the following table can be made:

Table 3. market share of marketing institutions in a market area.

Marketing Agency	Production Capacity That Can Be Absorbed In A Market Area	Market Share
1	a	a/x
2	b	b/x
3	c	c/x
4	d	d/x
....
N	m	m/x
Total	a+b+c+d+...+m = x	1

2.4.1.2. Herfindahl Index

This analytical tool aims to determine the degree of concentration of buyers from a market area, so that a general picture of the balance of bargaining power of farmers (producers) can be found against buyers. The formula for the Herfindahl Index is as follows:

$$IH = (S_1)^2 + (S_2)^2 + \dots + (S_N)^2$$

Where : IH = Herfindahl Index

N = Number of traders in a product market area

S_i = Share of commodity purchases from the i th trader ($i = 1, 2, 3, \dots, N$)

Criteria:

- IH = 1; then the market leads to monopsonistic
- IH = 0; the market leads to perfect competition.

2.4.1.3. (Concentration Ratio for Biggest Four) CR_4

CR_4 is the sum of the buying shares of the four largest buyers from a region, where the formula is as follows:

$$CR = \frac{\sum \text{perusahaan 4 yang paling besar}}{\sum \text{Market Share diseluruh Pasar}}$$

$$CR_4 = \frac{MS_1 + \dots + MS_4}{MS_1} \times 100\%$$

Criteria : (H value is in the range 0-1)

- $CR_4 > 0.4$; This indicates that the market is oligopsonistic.
- If the value of H = 1 then the market structure is monopsonistic
- If H is close to zero it leads to a perfectly competitive market form
- 95% = Monopsony market
- 80% oligopsony market

2.4.1.4. Concentration ratio (Kr)

is the ratio between the number of goods purchased by a particular merchant with the number of goods sold by all traders, then multiplied by 100%

2.4.1.5. Degree of Product Differentiation.

Product differentiation can be a barrier for other companies to enter the market. Competition will run perfectly if buyers can compare one item with another, product differentiation analysis in this study will be discussed using descriptive analysis.

2.4.1.6. Barriers to Market Entry

Anything that prevents new competitors from entering the market will increase the strength of existing companies. If these barriers did not exist, then new competitors would be free to enter the market, so pure monopsony would have little power. In this study, market entry barriers will be discussed descriptively from primary data.

The form of competition based on barriers to market entry is divided into several categories, including:

- Perfect competition occurs when competitors are easy to enter the market or free to enter the market
- Monopsony, occurs when competitors / new entrants are closed to enter the market
- Oligopsony, occurs when competitors/new entrants find it difficult to enter the market.

2.4.2. Market Behavior Analysis.

Analysis of market behavior is a general implication (behavior based on theory), therefore, to prove market characteristics related to market behavior, it is necessary to have accurate primary data related to this research. The discussion in this study tends to be a qualitative descriptive analysis related to the market that is the object of this research (in this case the sharpening will focus on the forms of collusion that occur in patchouli oil marketing in Terangun District, Gayo Lues Regency.

other marketing in relation to market structure. Market behavior can be in the form of commodity pricing practices, non-price competition practices, advertisements and changes in market share (Purcell, 1979). On the other hand, market behavior can also be seen from:

- Are there collusive practices among producers in determining prices?
- Strategic behavior carried out by producers in dealing with existing or emerging competitors in the market,
- Whether or not there is a role for advertising and research and development institutions

2.4.3. Analysis of Market Performance (Market Performance)

Analysis of market performance in this study was carried out with several approaches, which aimed to find out how the market appearance of the patchouli oil marketing system in Bukut Village, Terangun District, Gayo Lues Regency. The analytical tools used as an approach include:

2.4.3.1. Market Performance Analysis with Marketing Margin Approach

Patchouli Oil Marketing Margin is the price difference received by patchouli oil producing farmers with the price paid by the final consumer of patchouli oil (manufacturer), so mathematically, the margin can be written as follows:

$$MP = Pr - Pf \text{ or } MP = B + K$$

Where: MP = marketing margin

Pr = price at the level of the final consumer/manufacturer

Pf = price at the farm level of patchouli oil producers

B = marketing costs



K = marketing profit

2.4.3.2. Market Performance Analysis with the Share Price Approach Received by Farmers

When viewed from the farming point of view, the real share price at the farm level is the costs incurred in the production of patchouli oil plus the profits received from the farm. Thus, the profits obtained by farmers can be interpreted as farmers' income for their families, which if farmers choose different patchouli oil marketing channels, the amount of share price received by farmers will also be different.

$$SPf = \frac{Pf}{Pr} \times 100\%$$

Where : SPf = share price at farmer level

Pf = price at farm level

Pr = price at the level of the final consumer (manufacturer)

2.4.3.3. Market Performance Analysis with Marketing Cost Share Approach and Profit Sharing Between Marketing Agencies

According to Alhusniduki (1991), that the cost and profit share can also be used to analyze market performance in percentage units, where the formula is as follows:

$$SBi = \frac{Bi}{(Pr - Pf)} \times 100\%$$

And

$$SKi = \frac{Ki}{(Pr - Pf)} \times 100\%$$

Where :

SBi = Share of i-th marketing marketing costs

SKi = Profit share of the i-th marketing agency

Bi = marketing cost of the i-th marketing agency

Ki = 1st marketing agency profit

Pr = Patchouli Oil price at the level of final consumer/manufacturer (Rp/kg)

Pf = Patchouli Oil price at producer level (Rp/kg)

There are two different expert opinions about marketing margins, which are: stated that:

- The higher the marketing margin, the smaller the share received by farmers, which means that the market performance is still not efficient.
- High marketing margins (marketing costs + profits) do not necessarily reflect low marketing efficiency. This depends on improving the quality of products (marketing services) offered by marketing agencies to end consumers.

3. RESULTS AND DISCUSSION

3.1. Patchouli Oil Market Structure in Gayo Lues Regency

How the market situation faced by Patchouli Oil farmers in Gayo Lues Regency, especially in Bukut Village, will be known by the following analytical tools. Through the market structure, it will be known whether the Patchouli Oil market in Gayo Lues leads to a perfect market or leads to an imperfect market.

3.1.1. Market Share and Buyer Concentration

Quantitatively, the market structure can be known by calculating the degree of concentration of buyers, so that it can be known in general the balance picture of the bargaining power of Patchouli Oil farmers against buyers (gathering traders, village collectors and warehouse representatives of wholesalers. Calculation of market share and concentration of Patchouli Oil buyers in Indonesia) Bukut village can be seen in the following table.

<i>1. Collector Merchant Level</i>				
No	Number of Purchase Transactions (Kg)	Market Share	Cr(%)	Cr Kom (%)
1.	85	0.1589	15.89	15.89
2.	75	0.1402	14.02	29.91
3.	67.5	0.1261	12.62	42.53
4.	62.5	0.1168	11.68	54.21
5.	60	0.1121	11.21	65.42
6.	52.5	0.0981	9.81	75.24
7.	50	0.0934	9.35	84.58
8.	47.5	0.0888	8.88	93.46
9.	35	0.0654	6.54	100.00
Amount	535	1	100	
<i>2. Village Gathering Merchant Level</i>				
No	Number of Purchase Transactions (Kg)	Market Share	Cr(%)	Cr Kom (%)
1.	370	0.02824	28.24	28.24
2.	325	0.2481	24.81	53.05
3.	290	0.2214	22.14	75.19
4.	175	0.1336	13.36	88.55
5.	150	0.11145	11.45	100
Amount	1,310	1	100	
<i>3. Representative Warehouse Level</i>				
No	Number of Purchase Transactions (Kg)	Market Share	Cr(%)	Cr Kom (%)
1.	1.145	0.3823	38.23	38.23
2.	1,000	0.3339	33.39	71.62
3.	850	0.2838	28.38	100
Amount	2,995	1	100	

Source : Primary Data Processed, 2021

From the data above, it can be seen that according to the calculation of the market share analysis tool, the market share at the collector level occurs in the patchouli oil marketing system which is oligopoly with loose concentration, this is proven by the four largest collecting traders having a market share of 54.21% of the total market share, where for loose oligopoly has a range between more than 40% and less than 60% of the total share. Market share at the village collecting trader level



occurs when the Patchouli Oil marketing system is Oligopsony with strict concentration, this is proven by the four largest village collecting traders having a market share of 88.55% of the total share, where for strict oligopolies it has a range of more than 60% to 100%. Market share at the representative warehouse level occurs when the Patchouli Oil marketing system is Oligopsony with strict concentration, this is proven even though there are only three companies, they already have a market share of up to 100%, but have not achieved a pure monopoly, because there are still three companies that play a role in achieving this. 100%, however, it is a dominant company because there are no strong competitors. For more details can be seen in the following table.

No	Merchant Rank	Number of Merchants	Purchase Volume (Kg)	Cr (%)	Market Structure
1.	Collector	9	535	54.21	Oligopsony loose concentration
2.	Village collectors	5	1,310	88.55	Oligopsony Strict concentration
3.	Representative/Wholesales Warehouse	3	299	100	Oligopsony Tight concentration, the company is dominant, but not monopsony because there are still three companies

Source : Primary Data Processed, 2021

3.1.2. Concentration Measurement With Herfindahl . Index

By using the Herfindal Index analysis tool, the aim of knowing the degree of concentration of Patchouli Oil buyers in the research area will be achieved. The formula used in the Herfindal index is as follows:

$$IH = (S_1)^2 + (S_2)^2 + \dots + (S_N)^2$$

Where :
 IH : Herfindahl Index
 N : Number of traders in a product market area
 (S_2) : Share of commodity purchases from the 1st trader ($i=1,2,3,\dots,N$)

Criteria:

- $IH= 1$; then the market leads to monopsonistic
- $IH = 0$; the market leads to perfect competition.
- $0 < IH < 1$; then the market leads to oligopsonistic

1. Collector Merchant Level			
Number of Merchants	$(S_1)^2 + (S_2)^2 + \dots + (S_9)^2$	IH	Market Structure
9	$(0.1589)^2 + (0.1402)^2 + (0.1261)^2 + (0.1168)^2 + (0.1121)^2 + (0.0981)^2 + (0.0934)^2 + (0.0888)^2 + (0.0654)^2$	0.117	Patchouli Oil Market is Oligopsonistic
2. Village Gatherer Level			
Number of Merchants	$(S_1)^2 + (S_2)^2 + \dots + (S_5)^2$	IH	Market Structure
5	$(0.2824)^2 + (0.2481)^2 + (0.2214)^2 + (0.1336)^2 + (0.1145)^2$	0.221	Patchouli Oil Market is Oligopsonistic

3. Representative Building/Wholesales Building Level			
Number of Merchants	$(S_1)^2 + (S_2)^2 + (3)^2$	IH	Market Structure
3	$(0.3823)^2 + (0.3339)^2 + (0.2838)^2$	0.338	Patchouli Oil Market is Oligopsonistic

Source : Primary Data Processed, 2021

From the data above, it can be seen that the concentration of buyers on patchouli oil marketing in Bukut village, both collector traders, village collectors and representative warehouses/ wholesalers is oligopsony, but representative warehouses have the highest concentration (IH 0.338), followed by village traders. (IH-0.221), and the lowest concentration was traders (IH-0.117)

3.1.3. CR4 (Concentration Ratio for Biggest Four)

The CR4 analysis tool is one of the analytical tools used to see the bargaining position of Patchouli Oil farmers by adding up the buying shares of the four largest buyers of Patchouli Oil in Bukut Village, so that it can provide an overview of the market structure of Patchouli Oil in Bukut Village. where the formula is as follows:

$$CR = \frac{\sum \text{perusahaan 4 yang paling besar}}{\sum \text{Market Share diseluruh Pasar}}$$

Criteria: (H value is in the range 0-1)

- CR4 0.4 ; This indicates that the market is oligopsonistic.
- If the value of H-1 then the market structure is monopsonistic
- If H is close to zero it leads to a perfectly competitive market form

To find out how the description of the market structure of Patchouli Oil marketing in the research area, can be seen in the following table.

1. Collector Merchant Level			
Number of Purchase Transactions (kg)	$\frac{4 \text{ persh terbesar}}{\text{jlh total yh terbeli}}$	CR4	Market Structure
85 75 67.5 62.5	$\frac{85 + 75 + 67,5 + 62,5}{535}$	0.5421	Patchouli Oil Marketing at the level of collectors is Loose Oligopolistic
2. Collector Level			
Number of Purchase Transactions (kg)	$\frac{4 \text{ persh terbesar}}{\text{jlh total yh terbeli}}$	CR4	Market Structure
370 325 290 175	$\frac{370 + 325 + 290 + 175}{1.310}$	0.8855	Marketing of Patchouli Oil at the refiner level is strictly Oligopolistic
3. Representative Building/Wholesales level			
Number of Purchase Transactions (kg)	$\frac{4 \text{ persh terbesar}}{\text{jlh total yh terbeli}}$	CR4	Market Structure



1.145 1,000 850	$\frac{1.145 + 1.000 + 850}{2.995}$	1.00	Patchouli Oil Marketing at Warehouse level is Strictly Oligopolistic, although it can be said to be a monopoly because there are still 3 companies
-----------------------	-------------------------------------	------	--

Source : Primary Data Processed, 2021

From the data above, it can be seen that the marketing structure of Patchouli Oil in Gayo Lues, at the level of collector traders is a loose-level oligopoly with a CR4 value of 0.5421, at the village-collecting trader's level it is a tight-level oligopoly with a CR4 value of 0.8855, while at the representative/trader warehouse level Most are strict oligopoly with CR value, reaching 1.00. should have a value of 1.00 is a monopoly, but because there are still three competing companies, it is categorized as a strict oligopoly.

Under these conditions, after being tested with three kinds of test equipment, the marketing of Patchouli Oil is in an imperfect market condition which causes the bargaining position of Patchouli Oil farmers to be in a weak condition, so that farmers are always in a price taker position.

3.1.4. Degree of Product Differentiation

Especially at the farmer level, with weak socio-economic conditions, farmers cannot make product differentiation, because quality standards must follow the wishes of certain wholesalers, so they also have to sell to only one buyer. At the level of collecting traders, usually they already know the price standard, but it is not guaranteed, this is proven to still often experience price declines due to price changes from time to time. The collecting traders have carried out sorting activities, this is done because they hunt with time related to prices which in a matter of hours can change.

At the village collectors level, usually they already know the guaranteed price standard, this is proven to exist every year. They have done the sorting of patchouli oil. However, they usually still bump into the harvest season, so that in carrying out their patchouli oil processing activities it is still seasonal, usually they collide with capital, because at this level a large amount of capital is required, at least there must be a cash balance of 1 billion in one turn.

At the warehouse representative/ wholesaler level, differentiating patchouli oil products have been carried out. Transactions can occur at any time regardless of the patchouli planting season, because they already have Patchouli Oil in stock. Patchouli oil prices are guaranteed, because they are part of the price maker at the farmer level.

3.1.5. Barriers to Market Entry and Level of Market Knowledge

There are several things that become obstacles in marketing, including: (see table)

No.	Markets and Market Participants	Kinds of Obstacles	Problem	Freedom to enter the market
1.	Market Structure	Imperfect market (Oligopsoni)	Occurs in many agricultural products and is formed naturally	Difficult to enter the market, because it is easily damaged, seasonal, limited users
2.	Marketer Farmers	Tobacco quality	Who is the product for?	Difficult
		Capital	Small/limited	Difficult

		Relation	Limited	Difficult
		Experience and knowledge. Psr	Limited	Difficult
		Facilities and technology	Limited	Difficult

Source : Primary Data Processed, 2021

3.2. Behavior of Patchouli Oil Market in Gayo Lues Regency

In this study, it is described how what actually happened to the market behavior of Patchouli Oil marketing in Gayo Lues, considering that for the last few years farmers have always been in a state of price takers. In oligopsony markets, price determination collusion is usually carried out in a covert manner, predatory against the arrival of new competitors, this also occurs in the marketing of Patchouli Oil in Gayo Lues. Matters related to collusive practices in pricing, strategies in dealing with new competitors, research and development institutions on each market behavior, will be discussed descriptively as follows.

3.2.1. Collusion and Strategies carried out by representative warehouse level traders / wholesalers

As a high-level Patchouli Oil trader player in Gayo Lues, the representative warehouse can play its role whose goal is definitely to maximize the profits that will be obtained. For this purpose, there are several collusion and strategies that are carried out, including:

- 1) Determining the basic price of Patchouli Oil between wholesalers and wholesalers, which should not be known by collectors and farmers, in order to reduce prices on the part of collectors and farmers. In this case, lower-level traders will be in a quandary if prices change from time to time. Moreover, farmers as producers will have a very weak position (bargaining power), weak bargaining position, high capital, and uncertain prices. whereas the basic price is needed by farmers to be able to estimate whether their farming is successful or not.
- 2) Each wholesaler determines the desired quality standard of Patchouli Oil for each year (usually the color of the oil and the content of patchouli oil). The quality standard of patchouli oil content is used to block new players/traders who will enter, because farmers will try to get patchouli oil as desired by certain wholesalers.
- 3) Determining the deadline for receiving patchouli oil, usually no more than two weeks, aims to suppress the level of village collectors, sub-district collectors and farmers with the strategy that if they offer patchouli oil outside the specified time, the price will be low.
- 4) Also received Patchouli Oil with quality standards determined by other wholesalers at a very low price, which later will also be given to the buyer patchouli oil wholesalers at an agreed price.
- 5) In terms of promotion, usually representative warehouses always maintain the performance of their warehouses, because village collectors, subdistrict traders and farmers will judge that the wholesaler's representatives are bona fide or not. Likewise with good service to relationships, for example providing capital loans, loans for other needs, work contracts with village collectors, helping villagers in social service activities, competitions for young patchouli oil farmers, etc.
- 6) They are trying to kill patchouli oil marketing institutions that can increase farmers' bargaining power, for example weakening patchouli oil auction sites initiated by the government, by receiving patchouli oil from farmers in their own warehouses.

3.2.2. Collusion and strategy by village-level traders

Village collector traders as level two Patchouli Oil traders in Gayo Lues, play a role whose



goal is to maintain their existence (because new players are easier to emerge), besides that it is also certain to get the maximum profit. For this purpose, several collusion and strategies have been implemented, including:

- 1) Conduct coordination and work contracts with representative warehouses, so that the activities carried out are on a safe scale, determine standard prices and deposit times that are only known by certain people, capital loans, other loans.
- 2) Carrying out activities to increase the selling price, which in itself will increase the profits obtained, while village collectors receive Patchouli Oil from their collectors with Patchouli Oil condition still in small packages, of course at a lower price. how is the price at farm level? must be even more depressed, because they still have to go through the village collectors who will also definitely take advantage.
- 3) Making a surprise price for certain times, for example buying Patchouli Oil at a very high price in a very short time (for example two days and not being known by the collectors), the impact is that the collectors in the village also buy Patchouli Oil from farmers at arbitrary prices and farmers will harvest the patchouli plant even though it is not yet time to harvest it to be processed into oil. However, as soon as Patchouli Oil was brought to the village collectors' warehouse, the price had turned very low, which was determined by the collecting traders. Patchouli Oil produced by farmers will become Patchouli Oil with low quality, which in the end the price becomes cheap.
- 4) Installing special gathering traders to enter villages, playing price games, prices are very fluctuating. This aims to damage prices at lower levels, so that village collectors do not want to buy, which in the end the Patchouli Oil at the farmer level seems to be unsold and will definitely be sold at the price the village collectors want, (the bargaining position of farmers is very weak). Meanwhile, wholesalers no longer accept Patchouli Oil (collusion with sub-district collectors)
- 5) Giving capital loans to collecting traders, so that they are bound to sell their wares to certain village collectors, thus the existence of the village collecting traders themselves, as evidenced by the stock of Patchouli Oil in their warehouse. Often there are collecting traders who lose so they cannot return their loan capital to village collectors, this further weakens the position of the collecting traders, which is increasingly bound.

3.2.3. Collusion and Strategy by traders at the level of collectors

The existence of collecting traders as village/third level traders, the more difficult it is to collude and strategize, there must be certain tips so that their credibility as village Patchouli Oil traders remains. Some of the collusion and strategies that are often used by collecting traders to survive include:

- 1) Approaching farmers so that there is a psychological relationship, with the hope that if farmers will sell their oil products to them, there are also those who provide loan capital to farmers, either used for farming or consumptive, so that there is an attachment between the farmers concerned and certain collectors. .
- 2) Provided information about the high price of Patchouli Oil for the following year, although he himself was not sure about the price information he provided. This estimate usually comes from the village collectors' traders.
- 3) Encouraging farmers even though market prices fluctuate greatly, so that farmers continue to plant patchouli for the next year.

3.2.4. Collusion and Strategies by producer farmers

There is no opportunity for farmers to collude with anyone in marketing patchouli oil. Farmers as producers of Patchouli Oil can only accept the price conditions that have been set, because of the weak position of farmers both in terms of socio-economic and in marketing. So the position of

the farmer in this case is as a price taker. There are only two strategies that farmers can do, namely:

- 1) To obtain a large (maximum) income, one must be able to produce as much Patchouli Oil as possible, assuming that costs and prices do not change.
- 2) Farmers often produce patchouli oil which is sold to collectors. Storing oil waiting for the price in the market to rise.

By looking at the various collusions and strategies carried out by patchouli oil marketing actors above, it can be concluded that the marketing leads to oligopsony with a high concentration of both the level of collectors, village collectors and representative warehouses which are detrimental to Patchouli Oil farmers as producers.

Price competition that occurs among Patchouli Oil traders at every level is definitely going to be tight. For example, if one oligopsoner increases the price of its purchasing power, it will certainly be followed by its competitors, but if a decrease in the purchase price of one of its oligopsones will not necessarily be followed by other traders. If this happens it will certainly benefit the farmers, but what happens is that between traders at every level are united to reduce prices simultaneously which will have a very detrimental impact at the farmer level, this proves that collusion among traders is very strong. This situation continued until the end of this research.

With the condition of the oligopsony market structure, it proves that Patchouli Oil traders with a higher level can suppress Patchouli Oil traders who are at the lower level by engaging in collusion, strategy and predatory behavior. in the end it is still patchouli oil processing farmers who are victims because they are at the lowest level in the patchouli oil marketing system.

3.3. Market Performance (Market Performance)

In this study, to find out how the market performance of the Patchouli Oil marketing system in Gayo Lues is calculated using several approaches, including Marketing Mordin, Price Share received by farmers, Cost Share and Profit Share.

3.3.1. Marketing Margin

Marketing Margin which is meant in this study is the difference in price received by farmers producing Patchouli Oil with the price paid by the final consumer of Patchouli Oil (wholesale), or in other words, marketing margin is the difference between the price paid at the consumer level and the price received at the consumer level. producer. In this study there are four kinds of patchouli oil marketing channel systems studied, so that the amount of marketing margin in each channel can be the same and can be different, this depends on the length of the marketing channel, the cost of activities carried out by each marketing agency and the level of marketing activities. the profit expected by the actors of marketing institutions involved in the marketing process of Patchouli Oil.

In the following table will be presented the results of the analysis of marketing margins, share of prices received by patchouli oil farmers, cost and profit ratios between marketing institutions, at each patchouli oil marketing agency.

Marketing channel	Marketing Agency	Cost (Rp/kg)	Price	Share (%)	Price	Ratio K/B
I	<u>Patchouli farmer</u>			27.15		0.26
	Cost	365,000				
	Selling price	475,000				
	Profit	110,000				
	<u>Collector traders</u>					
	Fees/TK					
	Transportation					
	Purchase price					

	Selling price			
	Profit	74,700		
		3,540		
	<u>Village</u>			0.67
	<u>collectors</u>	475,000		
	Fees/TK			
	Transportation	845,000		
	Purchase price			
	Selling price	291,760		
	Profit			
	<u>Perwk</u>			
	<u>Warehouse</u>			
	Selling price			
		160,000		
		4,000		0.60
		845,000		
		1,200.000		
		191,000		
		1,500,000		
	Marketing Margin	1.025.000		

Source : Primary Data Processed, 2021

From the data table above, it can be seen that in the first marketing channel, the marketing margin is Rp. 1.025,000. The share price received by Patchouli Oil farmers is 27.15%, the ratio of costs and profits to Patchouli Oil farmers is 0.26, traders are collectors and traders are collectors in the sub-district 0.60.

The results of the analysis of marketing margins, price shares, cost and profit ratios, and the level of marketing of Patchouli Oil in the second marketing channel can be seen in the following table.

Marketing channel	Marketing Agency	Cost (Rp/kg)	Price	Share Price (%)	Ratio K/B
II	<u>Patchouli</u>				
	<u>farmer</u>			37.74	
	Cost	421,000			
	Selling price	585,000			0.39
	Profit				
		164.00			
	<u>Collector</u>				
	<u>traders</u>				
	Fees/TK				
	Transportation				
	Purchase price				

	Selling price	28750		
	Profit	5000		
	<u>Prwk Gudang</u>			
	<u>Warehouse</u>	585,000		0.77
	Selling price	1,550,000		
		936,250		
		1,550,000		
	Marketing Margin	965,000		

Source : Primary Data Processed, 2021

From the data table above, it can be seen that in the second marketing channel, the marketing margin is Rp. 965,000. The share price received by patchouli oil farmers is 37.74%, the ratio of costs and profits to patchouli oil farmers is 0.39, and collector traders are 0.77.

Marketing channel	Marketing Agency	Cost Price (Rp/kg)	Share Price (%)	Ratio K/B
III		625,000	43.83	0.43
	<u>Patchouli farmer</u>	876,500		
	Cost	251,500		
	Selling price			
	Profit			
	<u>Collector traders</u>			
	Fees/TK	31250		0.68
	Transportation	5000		
	Purchase price			
	Selling price	876,500		
	Profit			
	<u>Prwk Gudang Warehouse</u>			
	Selling price	1,500,000		
		587,250		
		1,500,000		
	Marketing Margin	875,000		

Source : Primary Data Processed, 2021

From the data table above, it can be seen that in the third marketing channel, the marketing margin is Rp. 875,000. The share price received by Patchouli Oil farmers is 43.83%, the ratio of costs



and benefits to Patchouli Oil farmers is 0.43, at village collectors is 0.68. To find out the comparison of the marketing margin of Patchouli Oil in the three types of channels, it can be seen in the following table.

<i>Marketing channel</i>	<i>Marketing Margin at Farmer Level (Rp/kg)</i>	<i>Percentage (%)</i>
I	1.025.000	37.91
II	965,000	28.68
III	875,000	33.41
Amount	955,000	100.00
<i>Average (\bar{x})</i>	2,865,000	

Source : Primary Data Processed, 2021

From the table data above, it can be seen that the marketing margins of the three marketing channels for Patchouli Oil in Gayo Lues have an uneven distribution. The biggest marketing margin is in the first marketing channel, which is Rp. 1.025,000. This is because the first marketing channel has the longest production flow. This proves that the longer the marketing channel, the smaller the marketing margin received by farmers.

The marketing margin in channel III is the smallest margin, which is Rp. 875,000, meaning that in this channel farmers are in the most profitable condition where the difference in the price of Patchouli Oil products they receive has the smallest price difference compared to the other two channels. While the third channel has a marketing margin of Rp. 965,000.

3.2.2. Share the Price Received by Patchouli Oil Farmers

The share price received by Patchouli Oil farmers in Gayo Lues can be seen from the three existing marketing channels. The share price received by farmers may vary. This means that if the channel that is passed is relatively long. it will increase its marketing margin, so that the price received by farmers will be smaller than the price paid by consumers. For more details, the comparison of share prices received by Patchouli Oil farmers can be seen in the following table:

<i>Marketing channel</i>	<i>Share Price (%)</i>	<i>Percentage (%)</i>
I	27.15	24.97
II	37.74	34.71
III	43.83	40.32
Amount	108.72	100.00
<i>Average (\bar{x})</i>	36.24	

Source : Primary Data Processed, 2021

From the data above, it can be explained that the largest share of prices received by Patchouli Oil farmers in Gayo Lues is in marketing channel III of 40.32%, followed by marketing channel II of 34.71%, and the lowest is marketing channel to III of 24.97% Seeing this condition, it can be said that the marketing of Patchouli Oil in Gayo Lues is in an inefficient condition because it has an unequal price share.

3.2.3. Profit and Cost Ratio of Patchouli Oil Marketing

Every actor in farming activities and market participants has the goal that every capital used for

business has the hope of adding value to the invested capital. To see the benefits of the costs incurred by Patchouli Oil farmers and marketing agencies, see the following table.

<i>Marketing channel</i>	<i>Marketing Agency</i>	<i>Cost (Rp/kg)</i>	<i>Profit (Rp/kg)</i>
I	• Farmer	365,000	110,000
	• Collector traders	78,240	291,760
	• Village collectors	164,000	191,000
II	• Farmer	421,000	164,000
	• Collector traders	33,750	936,250
	• Village collectors	164,000	191,000
III	• Farmer	625,000	251,500
	• Collector traders	36,250	587,250
	• Village collectors	164,000	191,000

Source : Primary Data Processed, 2021

From the data table above, it can be seen that each marketing agency in marketing channel I in carrying out its activities, farmers issue. a cost of Rp. 365,000/kg Patchouli oil has a profit of Rp. 111,000/kg, traders who spend Rp. 78,240/kg of Patchouli Oil have a profit of Rp. 291,760/kg, and village collectors spend Rp. 164,000/kg of Patchouli Oil having a profit of Rp. 191,000/kg.

In channel II which only has two actors, farmers spend Rp. 421,000/kg Patchouli Oil has a profit of Rp. 164,000/kg, while collectors spend Rp. 33,750/kg Patchouli Oil has a profit of Rp. 936,250/kg, and collector traders the village spends Rp. 164,000/kg Patchouli oil has a profit of Rp. 191,000/kg.

In channel III which also only has two actors, farmers spend Rp. 625,000/kg Patchouli oil has a profit of Rp. 251,500/kg, while village collectors spend Rp. 36,250/kg Patchouli oil has a profit of Rp. 587,250/kg. and village collectors spend IDR 164,000/kg Patchouli oil has a profit of IDR 191,000/kg.

To find out the profit and cost ratio of each Patchouli Oil marketing agency in Gayo Lues, it can be seen in the following table.

<i>Marketing channel</i>	<i>Farmer Ratio</i>	<i>K/B</i>	<i>K/B Collector traders</i>	<i>Ratio K/B Village collector traders</i>
I	0.26		0.67	0.60
II	0.93		0.77	---
III	0.43		---	---
<i>Amount</i>	1.08		1.44	1.28
<i>Average (\bar{x})</i>	0.36		0.72	0.64

Source : Primary Data Processed, 2021

In marketing channel 1, the ratio of profits and costs incurred by farmers is 0.26, meaning that each expenditure of one unit of cost will gain 0.26 of these costs. The ratio of profits and costs incurred by collectors is 0.67, meaning that for every expenditure of one unit of cost, a profit of 0.67 will be obtained from these costs. The ratio of profits and costs incurred by village collectors is 0.60, meaning that for every expenditure of one unit of cost, a profit of 0.60 is obtained from these costs.



In marketing channel II, the ratio of profits and costs incurred by farmers is 0.39, meaning that each expenditure of one unit of cost will get a profit of 0.39 from these costs. The ratio of profits and costs incurred by collectors is 0.77, meaning that for each expenditure of one unit of cost, a profit of 0.67 will be obtained from these costs.

In marketing channel III, the ratio of profits and costs incurred by farmers is 0.43 which means that each expenditure of one unit of cost will get a profit of 0.43 from these costs. The ratio of profits and costs incurred by village collectors is 0.68, meaning that for each expenditure of one unit of cost, a profit of 0.67 will be obtained from these costs.

The profit and cost ratio obtained by Patchouli Oil farmers is lower than that of market participants in each marketing channel, and those with the highest K/B ratio are achieved by traders in channel II.

It can also be seen that the profits and costs obtained by farmers in each marketing channel have differences that fluctuate relatively high, while marketing institutions tend to be stable in each marketing channel.

4. CONCLUSIONS AND SUGGESTIONS

The results of this study can be concluded:

1. Whereas according to the calculation of the market share analysis tool, the market share at the collector level occurs in an oligopoly marketing system for Patchouli Oil with loose concentration.
2. The concentration of buyers on the marketing of Patchouli Oil in Bukut village, both collectors, village collectors and representative warehouses/ wholesalers is oligopsony.
3. The marketing structure of Patchouli Oil in Gayo Lues, at the level of collector traders is a loose oligopoly with a CR4 value of 0.5421, at the level of a village collector it is a tight oligopoly with a CR4 value of 0.8855, while at the warehouse representative/ wholesaler level it is a tight oligopoly with a CR value, reaching 1.00. should have a value of 1.00 is a monopoly, but because there are still three competing companies, it is categorized as a strict oligopoly.
4. The biggest share of price received by Patchouli Oil farmers in Gayo Lues is in marketing channel III of 40.32 %, followed by marketing channel II of 34.71 %, and the lowest is marketing channel III of 24.97 % Seeing this condition, it can be said that the marketing of Patchouli Oil in Gayo Lues is in an inefficient condition because it has an unequal price share.
5. Profits and costs obtained by farmers in each marketing channel have differences that fluctuate relatively high, while marketing institutions tend to be stable in each marketing channel.

REFERENCES

- Gerson, RF (2004). *Measuring Customer Satisfaction*. Jakarta: PPM.
- Haefner, JE, Deli-Gray, Z., & Rosenbloom, A. (2011), "The importance of brand liking and brand trust in consumer decision making: Insights from Bulgarian and Hungarian consumers during the global economic crisis", *Managing Global Transitions : International Research Journal*, Vol. 9 No.3, pp.249-273.
- Hafeez, S., & Hasnu, S. (2010), "Customer satisfaction for cellular phone in Pakistan: A case study of Mobilink", *Business and Economics Research Journal*, Vol.1 No.(3), pp. 35-44.
- Hafeez, S. and Muhammad, B. (2012), "The Impact of Service Quality, Customer Satisfaction and Loyalty Programs on Customer's Loyalty: Evidence from Banking Sector of Pakistan", *International Journal of Business and Social Science*, Vol.3 No. 16, pp. 200-209.

- Heriyadi, Listiana, E. and Lay, YN (2018). An Analysis of the Influence of Service Quality, Personal Selling and Complaint Handling and Trust on Customer Retention (Survey of Bank Harda International Savings Customers, Pontianak Branch). Volume 7 Number 2.
- Kotler.P. (2008). Marketing Principles 2. Twelfth Edition. Jakarta : Erlangga.