

Structure, Conduct and Performance of the Coffee Processing Industry in Palembang and Pagar Alam Cities

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Abstract—The purpose of this study was to analyze the structure, conduct, and performance of the coffee processing industry in Palembang and Pagar Alam cities. The data used in this study are primary data collected by distributing questionnaires to coffee processing firms in Palembang city and Pagar Alam city. The analysis technique used is the Structure-Conduct-Performance (SCP) analysis. The results of the SCP analysis found that the market structure of the coffee processing industry in Palembang city and Pagar Alam city is Monopolistic Competition with a CR4 value of 32.43 percent in Palembang City and 37.65 percent in Pagar Alam city. Market Share values are less than 5.83 percent indicate opportunities for new firms to enter the industry. Analysis of the conduct of the coffee processing industry shows the strategies used are product, price, and promotion strategies. Performance measures can be seen from the ratio of productivity, efficiency, and profitability.

Keywords: Structure-Conduct-Performance (SCP), concentration ratio, Market Share, productivity, efficiency, profitability

I. INTRODUCTION

The industrial sector has a significant role in driving economic growth in South Sumatra because of its ability to create high added value. Industry can also open up opportunities to create and expand employment while reducing unemployment, which means increasing welfare and reducing poverty [18]. With a total workforce in 2018 of around 301,931 million people (including small, medium and large industries). Industrial sector workers contributed 45.86% of the total workforce in South Sumatra [3]. One sector that plays a significant role in economic development in South Sumatra is the processing industry.

The population of South Sumatra, which reaches more than 8,370,320 million, is a very promising market opportunity. South Sumatra has a large market potential for various products including food. Based on data presented by BPS [3], the food industry is a branch of industry that generally experiences positive growth trends. Besides having a positive growth the food industry is also an industry branch that absorbs the most labor, especially in the Cities of Palembang and Pagar Alam compared to

other branches of the industry as presented in Table 1 and Table 2 below.

TABLE I. SMALL SCALE PROCESSING INDUSTRY in PALEMBANG CITY, 2018

No	Branch of Industry	Business Unit	Labor (Person)	Investment (Rp.000)
1	Food	643	4588	21858659
2	Clothing and Skin	334	3748	10372025
3	Chemical and Building Materials	779	4715	20598206
4	Metals and Services	636	3534	20226765
5	Crafts and General	164	1889	1228512
Total		2556	18374	74284167

^a Source: South Sumatra Province Industry Office, 2018

TABLE II. SMALL PROCESSING INDUSTRY in PAGAR ALAM CITY, 2018

No	Branch of Industry	Business Unit	Labor (Person)	Investment (Rp.000)
1	Food	496	1287	19439781
2	Clothing and Skin	49	101	1491800
3	Chemical and Building Materials	118	359	3818065
4	Metals and Services	153	492	14564700
5	Crafts and General	69	242	2642075
Total		885	2481	41956421

^b Source: South Sumatra Province Industry Office, 2018

The small coffee processing industry is one of the food and beverage industries. Coffee commodity is one of the leading commodities besides rubber and palm oil [13]. The number of firms engaged in the coffee processing industry sector in South Sumatra is quite a lot. In 2018 there were 620 small coffee processing firms consisting of coffee sorting processing, coffee frying, coffee milling, and ground coffee [7]. In order to survive, firms in this industry must be able to compete with other firms that are

already in the market and potential firms that might enter the industrial market [19]. In addition, firms in an area must also be able to respond to competition with processed products from outside the region. Corporate conduct in the face of competition can be reflected in pricing strategies, advertising strategies, firm integration, and research and development [1].

Coffee is one of the plantation commodities that has an important role in the South Sumatra Province. Coffee plantations are a source of livelihood for farmers and farm laborers in several areas. A study conducted [14] concluded that Palembang City and Pagar Alam were included in the coffee production centers in South Sumatra. The study further also identified the coffee processing industry in this area as a small scale industry that has a workforce of 1 to 19 people. The phenomenon that has occurred during the last few years, there have been many increases in the prices of food and beverage raw materials [26]. This condition also pressured the coffee processing industry in the cities of Palembang and Pagar Alam which have the potential of processed coffee as leading commodities. The increase in raw material prices will have an impact on rising production costs. Conditions like this that must be able to be dealt with by the coffee processing business in order to still exist in the food industry in South Sumatra. As revealed [15] the pattern of responses carried out within the scope of industrial competition is what is referred to as market conduct.

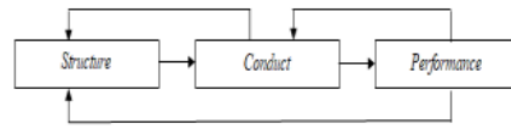
The success or failure of the strategy and conduct adopted by the firm in dealing with market competition can be seen from the performance showed by the firm. The level of profit or efficiency is often used to assess the results of firm performance [17].

By looking at the potential of the coffee processing industry in the cities of Palembang and Pagar Alam which is so large, this research makes this industry as the subject of discussion. The discussion in this study includes a description of the industrial market structure, conduct, and the performance of the coffee processing industry in the cities of Palembang and Pagar Alam.

II. LITERATURE REVIEW

A. Structure, Conduct, and Performance Approach

Industrial economics examines the market structure and firms that relatively emphasize empirical studies of the factors that influence market structure, market conduct (conduct) and performance. The basis of the SCP paradigm was sparked by Edward S. Mason, a lecturer at the University of Harvard in 1939, arguing that the structure of an industry will determine how industry actors behave which ultimately determines the diversity or performance of the industry. The SCP relationship can be described as follows:



Source: [27]

fig. 1. Structure, Conduct, and Performance Approach (SCP)

B. Industrial Structure

According to Greer [8], the market structure is defined as the number of sellers and buyers as well as the size of the market share which is determined by product differentiation, and is influenced by the entry and exit of entrants or competitors. To measure the market structure, several measures can be used, namely the concentration ratio and the Minimum Efficiency of Scale (MES).

C. Industrial Conduct

Industrial conduct according [15], is defined as the pattern of responses and adjustments of various firms in an industry to achieve its goals and face competition. Conduct can be seen in how firms determine prices, sales, product promotion, or advertising, coordination of activities in the market (for example by colluding, cartels and so on), and research and development (R&D).

D. Industrial Performance

Industrial performance according to [24], is the results or achievements that appear in the market as a reaction due to the actions of market competitors who carry out various strategies of the firm in order to compete and control the market conditions. Performance in more detail can be seen from profits, efficiency, growth (including market expansion), job opportunities, professional prestige, personnel welfare, and also group pride.

E. Prior Research

Research conducted [16] analyzes the Structure-Conduct-Performance (SCP) relationship which shows empirical differences between SCP and competing hypotheses that are still not conclusive and attract much research throughout the world and more recently in Africa. Further research was conducted [10] where the findings indicated a negative relationship between concentration and performance in the European banking market.

[21] shows that over the past 60 years, small scale industries have contributed significantly to Indonesia's national economic development. This study also evaluates the performance of small-scale industry performance in terms of number of registered units, fixed investment assets, and employment.

Furthermore [25] found that the level of profit obtained by banks is influenced by the market structure and the level of competition. [12] also conducted research using the Structure-Conduct-Performance approach and concluded that the structure of the textile industry and textile products is oligopoly. In the regression analysis the

5 results show that the concentration ratio (CR4) has a positive and significant effect on profits (PCM), MES has a negative and significant effect on PCM, and the labor capital ratio (CLR) has a positive and significant effect on PCM.

Then [4] conducted a study that showed the performance of the small-scale business sector has a direct impact on overall economic growth in terms of number of units, production, employment and exports

The [27] concludes that Indonesia's manufacturing industry has a varying degree of oligopoly market structure, and the results of panel data analysis show that the variables that have the greatest influence on PCM are productivity and X-efficiency, while the concentration ratio (CR), growth, export and import variables are not significant. increased profits. [2] conducted a study whose results showed that the manufacturing industry sector tends to have an oligopoly market structure, where the level of oligopoly varies between tight, moderate and loose oligopoly. The effect of concentration increases thus the price adjustment coefficient will also increase.

[22] examines the effect of structure based on market share, concentration and the Hirschman-Herfindahl Index on the performance of the textile industry proxy by Price-Cost-Margin. The results of the study there is a positive relationship between market share with the profits of firms in the market. With the proven market share that affects profits, it shows that there is a market power that enables collusive conduct among the actors.

4 III. RESEARCH METHODS

This research is a descriptive and quantitative research. The data used are primary data obtained by distributing questionnaires. The population of this research is 36 coffee processing firms in Palembang. There are 13 firms that produce ground coffee. Coffee processing firms in the Pagar Alam City are 202 firms, producing 21 coffee firms. Research sample consist of 37 small-scale coffee processing firms found in Palembang City (13 firms) and in Pagar Alam City (24 firms). Coffee processing firms which are used as research samples are those that produce the final product in the form of ground coffee.

4 The analytical method used in this research is descriptive and quantitative research methods. Descriptive method is used to analyze industrial conduct. Quantitative method with SCP approach to analyze industrial structure and performance.

A. Industrial Structure Analysis

Industrial structure is measured from the concentration ratio (CR4) and Market Share (MS) with the following formula.

- CR4 Criteria:

1) CR4 < 0.4, the market structure is perfect competition (competitive) or monopolistic competition (monopolistic competition needs to be seen whether there is product differentiation or not).

- 2) $0.4 < CR_4 < 0.8$ then the market structure is oligopolistic/oligoscopic (often when a CR4 value between 60-80% is called a tight oligopoly and a CR4 value between 40-60% is called a loose oligopoly).
- 3) $CR_4 > 0.8$, then the market structure tends to be monopolistic / monopsony.

- Market Concentration

The level of market concentration is calculated by the group of firms consisting of 4 firms that have higher output than other similar firms.

$$CR_4 = \frac{\sum \text{Output of the Four Largest Companies}}{\text{Total Output}} \times 100\%$$

- Market Share

Each firm has its own market share and the amount ranges from 0-100 percent of total market sales. The role of market share is as a source of profit for the firm.

$$MS \text{ Company } i = \frac{\text{Number of Production companies } i}{\text{Total Production of the entire company}} \times 100$$

B. Industrial Conduct Analysis

Industrial conduct is analyzed descriptively with the aim of obtaining information about firm conduct in an industry. This analysis was carried out because the variables that reflected their qualitative conduct were difficult to quantify.

C. Industry Performance Analysis

Industrial performance is analyzed by productivity, efficiency, profit ratio or profit by the following formula.

- Labor Productivity

The ratio of labor productivity is a measure to assess the performance of firms obtained by calculating the ratio of the amount of production produced by the firm to the number of workers.

$$\text{Productivity Company } i = \frac{\text{Production Amount Company } i}{\text{Total Labor Company } i}$$

- Efficiency

Analysis of firm (industry) performance using the ratio of firm production capacity to installed capacity used is to measure the level of efficiency in the production process. The closer the ratio is to 100 percent, the more efficient the firm in the production process and vice versa the closer it is to 0, the more inefficient.

$$\text{Efficiency Company } i = \frac{\text{Production Capacity Company } i}{\text{Installed capacity Company } i} \times 100$$

- Profit

The profit per unit of output produced by a firm is calculated by the difference between the selling price per unit and the cost per unit of output produced. The greater the difference, the greater the profits obtained by the firm and vice versa the smaller the difference, the smaller the profits obtained by the firm.

$$\pi = PQ_i - CQ_i$$

Information:

π = Profit firm i

PQ_i = Output price per unit firm i

CQ_i = Output cost per unit firm i

IV. RESULTS AND DISCUSSION

A. Description of Respondents

Research respondents are small-scale coffee processing firms where the questionnaires are used as a guide to the enumerators to collect data from the owner of the firm. Characteristics of respondents seen from age, owners of small-scale coffee processing firms in the city of Palembang who became the sample of this study as many as 13 people (35%), while the City of Pagar Alam as many as 24 people (64.9%) of the total respondents studied. Judging from the age of the owner of the firm, the majority of respondents in the city of Palembang are in the age range of 41 - 47 years as many as 4 people (10.8%), while the majority of respondents in city of Pagar Alam (24.3%) are in the age range of 48 - 55 years old. In detail the profile of respondents by age is presented in Table 3 below

TABLE III. RESPONDENTS by AGE

City	Age						Total (Person)
	25-32	33-40	41-47	48-55	56-63	64-73	
Palembang	2 (5,4)	2 (5,4)	4 (10,8)	1 (2,7)	3 (8,1)	1 (2,7)	13 (35,1)
Pagar Alam	2 (5,4)	8 (21,7)	3 (8,1)	9 (24,3)	2 (5,4)	0	24 (64,9)
Total	4	10	7	10	5	1	37

Source: Research results, processed, 2019
Note: Numbers in parentheses in percent

Judging from the gender of the firm owner, the majority of respondents in Palembang City and Pagar Alama City were male as many as 12 people (32.4%), and 21 people (56.8%) for city of Pagar Alam. In detail the profile of respondents by gender is presented in Table 4 below.

TABLE IV. RESPONDENTS by GENDER

City	Gender		Total (Person)
	Male	Female	
Palembang	12 (32,4)	1 (2,7)	13 (35,1)
Pagar Alam	21 (56,8)	3 (8,1)	24 (64,9)
Total	4	10	37

Source: Research results, processed, 2019
Note: Numbers in parentheses in percent

Characteristics of firm respondents seen from the year that commercial operations began, the majority of respondents in the city of Palembang were in the range of 1996-2006 as many as 4 firms (10.8%), while in city of Pagar Alam the majority (45.9%) were in the year 2007-2018, there were 17 industries. In detail the profile of firm respondents by year of operation is presented in Table 5 below.

TABLE V. RESPONDENTS by YEAR of COMMERCIAL OPERATION

City	Year of Commercial Operation						Total (Person)
	1952-1962	1963-1973	1974-1984	1985-1995	1996-2006	2007-2018	
Palembang	2 (5,4)	0	1 (2,7)	3 (8,1)	4 (10,8)	3 (8,1)	13 (35,1)
Pagar Alam	0	0	0	0	7 (19)	17 (45,9)	24 (64,9)
Total	2	0	1	3	11	20	37

Source: Research results, processed, 2019
Note: Numbers in parentheses in percent

A. Structure, Conduct, and Performance Analysis of Small Coffee Processing Industry in Palembang City and Pagar Alam City

Market Structure Concentration Ratio Analysis (CR₄)

Analysis of the market structure in the processing industry in Palembang City and Pagar Alam City can be known by looking at the concentration ratio of the four largest firms (CR₄) and the magnitude of barriers to market entry. However, the market share of each firm cannot be determined, due to the limited sales data. For this reason, CR₄ is directly seen, because CR₄ is assumed to be the first important step in an effort to conduct a competitive analysis. These three factors show how the size of competition between coffee processing firms to a market.

According to [11] that the merging of the four largest firms that have a market share of 60 to 100 percent produces a tight oligopoly market structure. And the merging of the four largest markets which have a market share of 40 percent or less than market share results in a loose oligopoly market structure. Here are the results of the calculation and the analysis of the coffee processing industry structure in Palembang City and Pagar Alam City.

TABLE VI. STRUCTURE ANALYSIS of COFFEE PROCESSING INDUSTRY in PALEMBANG CITY

No	firm	Production/kg	Percentage	Index Total CR4
1	firm A	85800	17,20984	32,43393
2	firm B	30420	6,10167	
3	firm C	23400	4,693593	
4	firm D	22080	4,428826	

¹Source: Data processed, 2019

5 Based on the results of the analysis from table above, it shows that the market structure that occurs in the powder coffee processing industry in Palembang City is monopolistic in nature with a concentration ratio of the four largest firms of CR4 of 32.43 percent.

TABLE VII. RESULT of ANALYSIS of PROCESSING INDUSTRY STRUCTURE in PAGAR ALAM CITY

No	firm	Production/kg	Percentage	Index Total CR4
1	firm A	84240	16,89693	37,65705
2	firm B	55200	11,07206	
3	firm C	26220	5,259231	
4	firm D	22080	4,428826	

¹Source: Data processed, 2019

5 Based on the results of the analysis from table above, it appears that the market structure that occurs in the powder coffee processing industry in Kota Pagar Alam is a monopolistic competition with a concentration ratio of the four largest firms of CR4 of 37.65 percent.

• Analysis of Barriers to Industry (Market Share)

According [11] barriers to market entry are all things that allow a decline, opportunity or speed of entry of new competitors. The entry of new entrants will have a number of implications for existing firms, such as increased capacity, market share and limited production resources. This condition poses a threat to existing firms.

One that can be a barrier to market entry is the presence of the largest firms that have existed before in the industrial world. This can be seen from MS. The MS value is obtained from the percentage of the largest firm's output to the total output of the coffee processing industry. The high MS can be a barrier for new competitors to enter the market of an industry.

TABLE VIII. MARKET SHARE of SMALL COFFEE PROCESSING INDUSTRY in PALEMBANG CITY

Range of Market Share	firm	Percentage
0,00 – 5,83	11	84,62
5,84 – 11,67	1	7,69
11,68 – 17,50	1	7,69
Total	13	100

¹Source: Data processed, 2019

According [6], MS more than 10 percent illustrates the high barriers to entry in an industry. The high MS

value can be a barrier for the entry of new firms into the industrial market in the city of Palembang.

Based on the results of the analysis in Table 8, it can be seen that the barriers to enter the coffee processing industry in Palembang are low with the average MS value of all research samples in Palembang being 13 samples is <10 percent. As many as 11 firms that have MS values of 5.83 percent and below, which means that barriers to entering the coffee processing industry in Palembang are low. The low MS score can motivate the entry of new firms into the coffee processing industry due to the absence of standard quality requirements for products produced in the coffee processing industry (ground coffee). While for MS values > 10 percent there are 2 firms, each of which has an MS value of 17.20 percent, while for one firm again has an MS value of 6.10 percent. The following results of MS analysis for Pagar Alam city are shown in table 9.

TABLE IX. MARKET SHARE of SMALL COFFEE PROCESSING INDUSTRY in PAGAR ALAM CITY

Range of Market Share	firm	Percentage
0,00 – 5,83	22	91,67
5,84 – 11,67	0	0,00
11,68 – 17,50	2	8,33
Total	24	100

¹Source: Data processed, 2019

The table above shows that from the 24 processing industries in Kota Pagar Alam, as many as 22 industries have market share values 4 the range of 0.00 - 5.83 (91.67%) or in other words that the barriers to entry in the coffee processing industry in Pagar Alam city relatively low. The same thing also happened in Palembang City with an average of all firms in the sample having MS values below 10 percent. The ease of entry into new firms into the coffee processing industry is also due to the non-binding / requirements to establish a firm which is difficult for business people.

Based on the measurement of the concentration of the four largest firms and the level of market share in the small coffee processing industry in Palembang and Pagar Alam, it can be concluded that the market structure of the coffee processing industry in the two regions is monopolistic competition.

B. Conduct

Analysis of the market conduct of the coffee processing industry in this study was done descriptively with reference to the existing market structure. Based on the analysis, the market structure in the coffee processing industry in Palembang City and Pagar Alam City is monopolistic competition. This will lead to several conducts carried out by industry players in the coffee processing industry in Palembang City and Pagar Alam City. The conduct carried out includes product strategies, prices, and promotions.

1 Analysis of the conduct of the coffee processing industry in Palembang and Pagar Alam that seen from the product strategy can be explained that the industry in

Pagar Alam processed coffee products have higher quality than Palembang's. This can be seen from the highest selling price of Rp.100,000 per kilogram, while in Palembang it is Rp. 60,000 per kilogram.¹ The monopolistic competition market structure in the coffee processing industry in Palembang and Pagar Alam indicates that the promotion strategy is quite effective in increasing sales in the market

C. Performance

Analysis of the structure and conduct of the coffee processing industry that has been identified and then measured the performance level of the processing industry. Performance calculations in this study use the ratio of productivity, profitability and efficiency to determine the level of efficiency in minimizing the firm's production costs.

- Productivity

To measure productivity of ground coffee processing, a comparison between the units of the amount of ground coffee production and the number of workers is used. Here are the results of calculating the productivity ratio in table 10:

TABLE X. PRODUCTIVITY of COFFEE PROCESSING INDUSTRY in PALEMBANG CITY

No.	Firm	Production (kg/yr)	Labor	Ratio/yr
1	Firm A	85800	20	4290
2	Firm B	7800	9	866,66666
3	Firm C	16560	6	2760
4	Firm D	900	6	150
5	Firm E	23400	4	5850
6	Firm F	30420	3	10140
7	Firm G	23400	3	7800
8	Firm H	4992	3	1664
9	Firm I	600	3	200
10	Firm J	7800	2	3900
11	Firm K	13000	1	13000
12	Firm L	5850	1	5850
13	Firm M	7200	1	7200

¹Source: Data processed, 2019

From table 10 above, it can be seen that the amount of labor is very influential on the amount of production produced. firm A has a high amount of production with annual productivity of 85800 kg or 86 tons with a workforce of 20 people. Different from table 10 above, the large number of workers does not affect much of the productivity produced.

One of the reasons why in the City of Pagar Alam does not have a direct relationship between the productivity of the output produced and the labor force owned by the City of Palembang is because the geographical location is quite different. The strategic location of the area, transportation and land and sea infrastructure that makes it easy for Palembang City to develop the technology needed and to buy ground coffee processing equipment technology that can increase its productivity.

TABLE XI. PRODUCTIVITY of COFFEE PROCESSING INDUSTRY in PAGAR ALAM CITY

No.	Firm	Production (kg/yr)	Labor	Ratio/yr
1	Firm A	19872	11	1806,545
2	Firm B	6000	8	750
3	Firm C	294	6	49
4	Firm D	26220	5	5244
5	Firm E	960	5	192
6	Firm F	84240	3	28080
7	Firm G	12000	3	4000
8	Firm H	5100	3	1700
9	Firm I	2940	3	980
10	Firm J	1200	3	400
11	Firm K	300	3	100
12	Firm L	49680	2	24840
13	Firm M	22080	2	11040
14	Firm N	9.000	2	4500
15	Firm O	7500	2	3750
16	Firm P	6000	2	3000
17	Firm Q	4500	2	2250
18	Firm R	2880	2	1440
19	Firm S	800	2	400
20	Firm T	600	2	300
21	Firm U	936	1	936
22	Firm V	540	1	540
23	Firm W	120	1	120
24	Firm X	60	1	60

¹Source: Data processed, 2019

From the table above, it can be seen that a large number of workers is not necessarily able to produce high production as well. For example, firm A has a workforce of 11 people, the firm is only able to produce robusta type coffee powder as much as 19872 kg / yr or with a productivity ratio of 1806 kg/year, which means that one employee in the firm can produce robusta type coffee powder only 1.8 tons per year. In contrast to firm F, which has the largest amount of production in Pagar Alam city, the firm is able to produce 84240 kg/year Robusta coffee powder with a workforce of 3 people with a productivity of 28 tons per one workforce for one year.

One of the effects of high productivity is seen in terms of robusta coffee processing technology. Most firms in Pagar Alam city do not have high technology, due to limited average costs and capital in producing robusta coffee powder. Only some firms have sophisticated processing equipment for producing ground coffee. Most firms that do not have sophisticated processing equipment, use the services of other firms in terms of production processes such as, using the services of coffee roasting/coffee frying or grinding coffee beans into robusta type coffee powder on a large scale.

Based on an analysis of labor productivity performance it can be concluded that the labor productivity of the coffee processing industry in Palembang is higher than in Pagar Alam which is 4897.74 per year (Palembang) and 4019.89 per year (Pagar Alam).

• Profitability Ratio

Another measure to determine the performance of the coffee processing industry, especially ground coffee is calculated by the sales price of a product (in rupiah/kg) and the costs incurred in processing the product (cost per unit). The greater the difference between the sales price and the cost of sales, the more efficient in measuring the performance of a processing industry as can be seen in table 12.

TABLE XII. PROFITABILITY RATIO of COFFEE PROCESSING INDUSTRY in PALEMBANG CITY

Range Profit	firm	Percentage
10.000 - 25.000	2	15,38
26.000 - 41.000	3	23,08
42.000 - 57.000	6	46,15
58.000 - 73.000	2	15,38
74.000 - 89.000	0	0,00
Total	13	100

¹Source: Data processed, 2019

The table above shows the efficiency of the net profit from the most sales output in Palembang City firms is Rp.10,000 - 57,000 as many as 11 firms with a percentage of 74 percent and above Rp. 58,000 as many as 2 firms with a percentage of 15.38 percent.

TABLE XIII. PROFITABILITY RATIO of COFFEE PROCESSING INDUSTRY in PAGAR ALAM CITY

Range of Profit	firm	Percentage
10.000 - 25.000	13	54,17
26.000 - 41.000	6	25,00
42.000 - 57.000	2	8,33
58.000 - 73.000	2	8,33
74.000 - 89.000	1	4,17
Total	24	100

²Source: Data processed, 2019

Likewise with the profitability of the coffee processing industry in the City of Pagar Alam. The maximum profit per output is Rp. 89,000. management efficiency between the sales price of output and the average cost of production is quite efficient.

Based on the analysis of profitability performance, it can be concluded that most of the coffee processing industries in Palembang obtain profits in the range of Rp.42,000 – Rp.57,000 per kg, while in Pagar Alam in the range of Rp.10,000 – Rp.25,000 per kg.

• Efficiency Ratio (Machine Capacity Optimization)

This study uses the efficiency variable which is calculated by the ratio between production capacity and installed capacity of the firm to analyze the performance of the processing industry in Palembang City and Pagar Alam City. Efficiency indicates the level of efficiency of an industry in minimizing its production costs, getting closer to 100 percent, then the firm can be said to be efficient. Following are the results of the calculation of the

Processing Industry Efficiency analysis in Palembang City and Pagar Alam City.

TABLE XIV. EFFICIENCY RATIO of PALEMBANG CITY COFFEE PROCESSING INDUSTRY

Range of Efficiency	firm	Percentage
>50	0	0,00
50-59	1	7,69
60-69	2	15,38
70-79	5	38,46
80-89	3	23,08
90-99	2	15,38
>99	0	0,00
Total	13	100

³Source: Data processed, 2019

From the above table, the highest level of efficiency of Palembang City is in the range of 70-79 as many as 5 industries (38.46%). And no one under 50, it can be said that coffee firms in Palembang are all efficient in minimizing production costs.

TABLE XV. EFFICIENCY RATIO of PAGAR ALAM CITY COFFEE PROCESSING INDUSTRY

Range of Efficiency	firm	Percentage
>50	1	4,17
50-59	3	12,50
60-69	1	4,17
70-79	5	20,83
80-89	7	29,17
90-99	7	29,17
>99	0	0,00
Total	14	100

⁴Source: Data processed, 2019

From the table above, the highest level of efficiency in the coffee processing industry in Pagar Alam city is in the range of 80-99 as many as 14 firms (58.34%). And there are under 50 as many as one firm (4.17%) that has not been efficient in managing its production costs.

The efficiency level of the coffee processing industry is also seen from the comparison of the average cost of producing per unit of output produced. The following table shows a comparison of the costs per unit of output produced in the small coffee processing industry in the city of Palembang. From the table above, the level of efficiency of the coffee processing industry in Palembang is based on average costs, all firms are in the range of Rp.41,000 to Rp. 71.000.

TABLE XVI. EFFICIENCY in PALEMBANG CITY BASED on AVERAGE COSTS

Range of Efficiency	firm	Percentage
10.000 - 40.000	0	0
41.000 - 71.000	13	100
72.000 - 102.000	0	0
Total	13	100

⁵Source: Data processed, 2019

The following table shows the comparison of costs per unit of output produced in the small coffee processing industry in Kota Pagar Alam.

TABLE XVII. EFFICIENCY in PAGAR ALAM CITY BASED on AVERAGE COSTS

Range of Efficiency	firm	Percentage
10.000 - 40.000	13	54,17
41.000 - 71.000	7	29,17
72.000 - 102.000	4	16,66
Total	24	100

*Source: Data processed, 2019

From the table above, the level of efficiency of the coffee processing industry in Pagar Alam city is based on average costs, there are 13 firms (54.17%) whose average costs are in the range of Rp.10,000 - Rp.40,000. A total of 7 firms are in the range of Rp.41,000 to Rp.71,000 (29.17%). And the range of Rp.72,000 to Rp.102,000 was 4 firms (16.66%). Thus it can be concluded that the coffee processing industry in the City of Pagar Alam is mostly more efficient than in the city of Palembang.

V. CONCLUSION AND SUGGESTION

A. Conclusion

The coffee processing industry in Palembang City and Pagar Alam City in general have a monopolistic competition market structure in which there are many competitors but none of them has a meaningful market share. CR4 and MS values indicate that there are only a few barriers to entry in the industry so that new companies can enter at any time if there is more profit above the level of normal competition in the industry.

The conduct of the coffee processing industry in Palembang City and Pagar Alam City can be seen from the product pricing strategy where the company's position is as a price taker even though the power to influence prices is relatively small. The power to influence prices comes from the characteristics of the products produced, such as quality, packaging, shape, etc. so that competition other than price is quite large.

The performance of the coffee processing industry in Palembang City and Pagar Alam shows a normal level of profitability and a fairly good level of internal efficiency in the industry. The market structure of the coffee processing industry which is monopolistic in nature has an impact on industry performance which is also seen from the efficiency ratio which shows that most industries show good efficiency in the use of processing capacity.

B. Suggestion

Based on the conclusion outlined, suggestions can be given to improve the performance of the coffee processing industry in Palembang and Pagar Alam cities, namely:

- 1) The market structure in the coffee processing industry in Palembang City and Pagar Alam City is

in a form of monopolistic competition. This requires supervision from the government so as not to appear unhealthy conducts that can harm some firms in the industry.

- 2) The efficiency performance obtained in the coffee processing industry in the City of Palembang and City of Pagar Alam shows that there are still some firms that are not yet efficient in producing so that efforts are needed to increase production capacity by increasing the use of raw materials, increasing the number of workers and reducing costs production.
- 3) For further research, it is expected to study and analyze the structure, conduct, and performance of the coffee processing industry in Palembang City and Pagar Alam City because so far the industry has become one of the top priorities in regional development plans.

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