

ASSESSING THE PERFORMANCE OF DIRECT ACTIVITIES IN PALM OIL MILL, KELANTAN

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Received: 25.03.2020

Revised: 23.04.2020

Accepted: 01.06.2020

Abstract

Direct activity means a major business process within a company. According to a company study, Serasa Palm Oil Mill. The company is a processing company of Crude Palm Oil (CPO) and Palm Kernel (PK). Therefore, CPO and PK are direct activities available at Palm Oil Mill. In this study, researchers are more focused on CPO and PK production because of higher priced sales. Based on this study, the researcher has made two objectives to identify the direct activities of the Palm Oil Mill and to identify problems and to obtain solutions at the Coconut Factory Palm oil. This problem is made through the production of CPO and PK products. Each objective was based on the method used observation and interview conducted at Serasa Palm Oil Mill. Through observation and interview, researcher of a problem that is much related to this study, they are still using the obsolete machines in the process of producing PK and CPO. Through this problem, researchers have conducted a study to identify every process or activity that is carried out in the process of manufacturing CPO and PK. Additionally, researchers also make another objective in detail regarding the problems they face other than the use of old machines. Researchers also provide opinions to resolve any problems that exist. The result is the researcher can identify in detail the process, among which is the first step in processing is at the mill, where the crude palm oil is extracted from the fruit.

Index Terms-- Direct activity, Crude Palm Oil, Palm Kernel Production Process.

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DOI: <http://dx.doi.org/10.31838/jcr.07.08.21>

INTRODUCTION

This study assesses the performance of direct activities at Serasa Palm Oil Mill. As we know, palm oil is important part of improving the country's economic growth. Serasa Palm Oil Mill is the company that proses the oil palm fruit and sent the palm oil by lorry to their customers. Serasa Palm Oil Mill is an important part to complete the proses of palm oil before sent to one point to another point. This activity cannot be performed without proses function such as trucks, ships, trains, and planes.

The past few decades have seen the rapid growth of the oil palm industry in Malaysia, in terms of cultivated area and volume of production. Today, oil palm dominates the landscape throughout the country and the industry has become a major contributor to Malaysia's export earnings, particularly during the 1997/98 Asian financial crisis. The increase in palm oil production has been driven by strong and increasing global demand for oils and fats. This has led to the conversion of large tracts of land for oil palm cultivation, the expansion in recent years is more pronounced in East Malaysia as the availability of suitable land in Peninsular Malaysia diminished. The spread of oil palm has seen the clearing of many lowland forests, some of which are ecologically sensitive, such as the Lower Kinabatangan floodplains in Sabah. There are concerns over how future developments in this sector will affect the quality of the environment, especially of the remaining forest land in the country. It is in this context that WWF Malaysia commissioned this study on land use and the oil palm industry in Malaysia. This study is jointly funded by the Policy Assessment of Malaysian Conservation Issues (MY 0057) and the WWF Partners for Wetlands, Malaysia. (MYS 406/98), (Teoh Cheng Hai, 2000).

Problem Statement

In this study, researchers are able to explain their activities directly at Palm Oil Mill. Researchers will also identify some other issues with the solution that will be provided in the

analysis chapter later. This will improve the performance of direct activities at Serasa Palm Oil Mill. Direct activity is direct employment generated directly by activities carried out at Serasa Palm Oil Mill as a process of manufacturing crude palm oil. The production process for crude palm oil production at Serasa Palm Oil Mill also seems to be problematic or may decline if they are still using outdated machines in processing.

Thus, based on interviews conducted by researchers to Syafiq (2018), respondents noted that there are several machines that have long been used in Palm Oil Mill. This can be a deferment in the processing of crude palm oil and palm kernel.

In addition, through observations and surveys made by researchers. The researchers found that there were other problems, such as access to the workplace was also a problem faced by the workers there. Through this study, researchers will provide several solutions for chapter analysis based on the problems they face.

Research Objective

There are three objectives of the study, where the objectives will end with expected result needed by the student. The research objectives are:

- To identify of direct activities in Serasa Palm Oil Mill.
- To identify the problems in production and provided the solution for Serasa Palm Oil Mill.

LITERATURE REVIEW

Impact of economic

Large-scale company play an important role in the national economy, for example, from the trading industry to financial activities. This has affected social, economic, environmental, and political affairs. "Impact of Economy" refers to all adjustments in the business, the interests of goods and enterprises, and the

commitment to impose income that may be considered directly or with implications at the distance of the transport system (Journal, Business, & Studies, 2011).

Business revenue impact

The revenue impact is a measure of the total economic activity in the state that is generated by the despatch the crude palm oil via the transportation, using the third parties companies. Based on information from previous researcher states as follows:

Based on statement (Martin Associates, 2012) said note that the main parts of the revenue impact that can be distinguished as staying in the neighbourhood economy are those segments scattered in the accompanying courses: pay rates to nearby workers; nearby buys by people and organizations specifically reliant on the company; commitments to government, state provincial and local taxes; occupant rent instalments to the company experts.

At the start, sent the crude palm oil can produce business revenue for firms that give administrations. This business revenue impact is scattered all through the economy in a few ways. It is utilized to enlist individuals to give the administrations, to buy products and different administrations, to pay for the utilization of company and to influence government, to state and neighbourhood charge instalments. The rest of used to pay investors, resign obligation, make speculations or is held as held profit. It is to be accentuated that the main bits of the revenue impact that can be certainly distinguished as staying in the condition of company are those segments paid out in pay rates to port representatives, for neighbourhood buys by people and businesses specifically subject to the terminal, and in commitments to state and nearby duties, and in addition government charges (Martin Associates, 2014).

Business turnover comprises aggregate business acceptance by a governing firm with each single shipments, processing and production of crude palm oil. Purchases executed locally and internationally for products and businesses made by the firms involved are estimated directly. Every purchase made by a company in need makes a distorted effect. Then, the effect of revenue is the measurement of direct business revenue earned by the company. It should be emphasized that this income effect is not actually charged to the close economic part. Only segments of income paid in wages and payment rates to those specifically used are used by firms and land owners who rely on the purchase of the company's products and companies, and some of the revenue paid in valuation to the nearest government and district can be perfectly distinguished as life in the economics.

State & local taxes

In addition to analysing the economic impacts of the Serasa Palm Oil Mill, researchers also examined the local and aggregate tax impacts of palm oil process.

According to Inter VISTAS Consulting Inc., (2015) his part of the report documents the current contribution to government revenues resulting from current operations and associated economic activity. This includes revenues received by federal, provincial and municipal governments. After that from Associates Martin, (2008) said Tax impacts are instalments to state governments and federal governments by firms and by people who work directly or indirectly also require and enforce (occupation driven) by movement in the company.

Duty income comprises of duties paid by rough palm oil directors and representatives to different levels of government. They consolidate wage and monetary charges and social security responsibilities, (for instance, business insurance premiums). For every class, charges paid to the administrative, common and

neighbourhood levels of government are independently recognized. The inspiration driving this region is to demonstrate the duty income responsibilities coming to fruition due to the activity attributable to company. Correspondingly, similarly, as with each and every such examination, a hypothetical decision must be made in the matter of how wide the importance of budgetary development should be used as a piece of evaluating the impacts.

Employees Activities

Employee activity is also illustrated by some researchers. The previous researcher explained that the activities of the workers were divided into three or four, among them direct, indirect, induced and related or catalytic jobs. The fourth description is as below: -

The worker's activities on the company action contains four levels:

Direct Employees

Direct jobs is what will not exist if the action on the processing of crude palm oil and industrial office ceases. Direct employment made by the crude palm oil production process is the work of an organization that directly provides transport and administration in process, including truck organizations, in-process administrators, individuals from crude palm oil transmission areas, individuals who deliver crude palm oil and workers who operate parts qualitative of crude palm oil. (Associates, 2008).

According to Martin Associates, (2011) the impact of direct labour is the work generated directly through the production of crude palm oil. The direct labour produced by the crude palm oil production process has several divisions in the FFB process flow. Subsequently, it is also directly about the worker, revenue and expenses paid by the production sector itself, including the machine used as the direct activity required to produce the product. (Oxford Economics, 2013).

The direct work would not exist if the movement in the crude palm oil process was not implemented at present. The direct employment created by movements in crude palm oil processing is the job with organizations directly transporting and managing the processing, including truck organizations, administrations in assessing the concentration of crude palm oil, individuals from MPOB also provide a direct movement in the process of stabilizing the crude palm marketing process oil, and delivery departments are also a direct activity.

The direct impact of the work is on the ongoing work through the movement of crude palm oil processing. The Palm Oil Mill works directly combining work with lorry and transport tanks to move the product from the starting point to the destination they want to send (Martin Associates, 2011). It should be noted that "directly represented" tasks are those that will involve short-term departures if processing movements stop.

Indirect employees

According to Study, (2015) indirect jobs is work in industries that supply or provide administrations to the c business. At that point (Oxford Economics, 2013) said the work, yield and expense receipts upheld through the company part's obtainment of contributions of products and enterprises from its UK-based store network.

Employments, made for purchase by a firm, not a person, delegate deviant tasks. These works are assessed on the basis of purchase of land made by landowners and crude palm oil production companies, in the area (Associates, 2012). After that, based on explanation by Martin Associates, (2012) the indirect jobs are measured based on actual local purchase patterns of the directly dependent firms and occur with such industries as

utilities, office supplies, contract service providers, maintenance and repair, and construction.

According to Martin Associates, (2014) these jobs are assessed directly from nearby buys information provided to Martin Associates by the 1,067 organizations met as a feature of this examination and incorporate jobs with the office supply firms, support and repair firms, parts and gear providers, and so forth. It is to be accentuated that uncommon care was taken to maintain a strategic distance from double counting including since the present investigation considers certain jobs direct, which are frequently named indirectly by different methodologies.

These jobs are estimated directly from local purchases data supplied to Martin Associates by the companies interviewed as part of this study and include jobs with local office supply firms, maintenances and repair firms, parts and equipment suppliers (Associates, 2008).

Induced employments

Induced employment is employment created because of expenditures by individuals employed both directly and indirectly by businesses related to the company. It represents the demand for goods and services generated by wage earnings from economic activity directly related to the crude palm oil processing (Study, 2015).

After that, according to (Oxford Economics, 2013) the employment, output and tax receipts supported by the spending of those directly or indirectly employed in the UK company sector spending their wages. This helps to support jobs in the companies producing consumer goods and in a range of service industries. Then Martin Associates, (2011), Associates, (2008), Martin Associates, (2014) and “economic impacts of the port Prepared for: Port of Los Angeles Martin Associates 941 Wheatland Avenue Lancaster , PA 17603,” (2007) said jobs created throughout the local, regional and national economies because individuals directly employed due to company activity spend their wages locally on goods and services such as food, housing and clothing.

Economy of Crude Palm Oil in Malaysia

Malaysia is at present the world's biggest exporter of palm oil despite the fact that it is the second-biggest maker of the oil subsequent to neighbouring Indonesia. With a damp tropical atmosphere and temperature going from 24°C to 32°C consistently, combined with sufficient daylight and a uniformly conveyed yearly precipitation of around 2000 mm, Malaysia is currently home toward the West African palm initially acquainted with Malaysia (at that point known as Malaya) as an elaborate plant in 1875. Business planting of oil palm did not happen until 1917. The quick development of oil palm in the 1960s was energized by the Malaysian government, which perceived its potential as a correlative harvest to rubber.

The Malaysian oil palm industry showed a sterling performance in 2017. Crude palm oil (CPO) production and fresh fruit bunch (FFB) yield witnessed significant increases following recovery from the impact of the El-Nino phenomenon a year earlier. According to the Department of Statistics, Malaysia, higher palm oil prices and improved export demand helped push export earnings to RM77.85 billion, up from RM67.92 billion in 2016. Oil palm planted area in 2017 reached 5.81 million hectares, an increase of 1.3% as against 5.74 million hectares the previous year. Sarawak overtook Sabah as the largest oil palm planted state, with 1.56 million hectares or 26.8% of the total Malaysian oil palm planted area, followed by Sabah with 1.55 million hectares or 26.6% and Peninsular Malaysia with 2.70 million hectares or 46.6% (Malaysian Palm Oil Board, 2016).

Economy in Kelantan

Based on Proposisi, (2016) Kelantan increased by 5.0 per cent compared to 4.8 per cent supported by the services, agriculture and manufacturing sectors. The services sector maintained a growth of 5.0 per cent (2016: 5.0%) contributed by the wholesale and retail trade and communications sub-sector. In addition, the agriculture sector grew by 4.7 per cent (2016: 2.9%) due to better growth in the rubber, oil palm and paddy sub-sectors. Strong growth in the electrical & electronic sub-sector led the manufacturing sector to 9.1 per cent (2016: 2.1%). However, the construction sector declined to 9.3 per cent negative compared to 29.6 per cent in the previous year.

Mustapa said the construction of refineries at Sawit Raya Oil SdnBhd will save the cost and time of crude palm oil production to be processed at refineries in Kuantan, Pahang and Port Klang, Selangor. Hence, there are several interests associated with building a plant, among others, that can help improve the state's economic growth through SMEs. According to MStar, (2015) statement by Mustapa said Malaysia's Investment Development Authority (MIDA) approved a RM1.2 billion withdrawal in Kelantan last year and in January-June this year of RM268 million.

Economy in Serasa Palm Oil Mill

Serasa Palm Oil Mill Sdn. Bhd. engages in the cultivation of oil palm and the production of crude palm oil. The company is based in Malaysia. Serasa Palm Oil Mill Sdn. Bhd. operates as a subsidiary of Tradewinds Plantation Berhad.

Based on the findings of the researcher, one of the activities under the agricultural sector is the production of CPO, at Serasa Palm Oil Mill. The table below shows the CPO sales value for 5 years according to researcher's requirements.

Calculation for price by year CPO (P)

$$P = x(y)$$

$$x - \text{CPO (MT)}$$

$$y - \text{Average of total price}$$

Calculation for tax charge

$$\text{Tax charge} = 24\% \times P$$

RESULT & DISCUSSION

Data collection

Data collection is a process of measuring and gathering information on the current research title. Generally, there are three types of data collection involved in this research which are:

- a. Individual Interviews - Structured on unstructured one on one directed conversations with key individuals of the company
- b. Journals, Articles and News

Interview Appointment Respondents

Table 1. Interview Appointment Respondents

| Respondents | Position | Organizations |
|--------------------------------|---------------------|----------------------|
| Muhammad Syafiq Bin Mat Salleh | Document controller | Serasa Palm Oil Mill |

Finding and Result

RO1:

To identify of direct activities in Serasa Palm Oil Mill. To fulfil this objective, the researcher has created the following questions:

RQ1: What are the direct activities in Serasa Palm Oil Mill?

a. Finding Related on Interview Data

The oil palm fruit produces two distinct oils which are palm oil and palm kernel oil. Palm oil is obtained from the monocarp while palm kernel oil is obtained from the seed or kernel. Palm oil is used mainly for the production of margarine and compounds in cooking fats and oils and also for the production of candles, detergents, soap and cosmetic products. Production of palm kernel oil is about 12% of the production of its palm oil (Abdullah & Sulaim, 2013).

Based on transcripts, interviews show that Serasa Palm Oil Mill has only two types of direct activities. Among them are Crude Palm Oil (CPO) and Kernel Palm Oil. For this study researchers are focusing only on CPO. Through interviews, researchers found that each process was a direct activity.

A unique feature of the oil palm is that it produces two types of oil - palm oil from the flesh of the fruit, and palm kernel oil from the seed or kernel. For every 10 tonnes of palm oil, about 1 tonne of palm kernel oil is also obtained. Several processing operations are used to produce the finished palm oil that meets the users' requirements. The first step in processing is at the mill, where the crude palm oil is extracted from the fruit. The various steps in extraction are shown at the Flow Step.

Step 1: Weighing

Palm fruit into the factory after truck weighing, ease of product costing and after the settlement.

Step 2: Loading Ramp

FFB after a ramp sieved to remove impurities into the transport machinery delivery to sterilization tank. For this step Serasa Palm Oil Mill uses machines Hydraulic Door and Hydraulic Power Pack as their equipment.

Step 3: Sterilization

The use of high temperatures to cook soft fruit bunches and sterilization (145 °C, 90-120 minutes), easy to separate fruit bunches fruit, soft fruit, increasing the humidity of the fruit. For this step Serasa Palm Oil Mill uses machines sterilization as their equipment.

Step 4: Stripping

FFB has softened in the sterilization process. After machine and screening beating off the fruit, palm fruit and empty fruit bunches (EFB) separation. After delivery hoarding, EFB shipped orchard as fertilizer or fuel, it can also be used for other purposes. For this step Serasa Palm Oil Mill uses machines crane, thresher, below thresher conveyor, bottom cross conveyor, EFB conveyor, EFB elevator, EFB press, EFB press hydraulic system, EFB conveyor, EFB conveyor and bunch elevator for 2nd threshing as their equipment.

Step 5: Pressing

The crushed fruit screw extrusion leaching by the press. Fruit is broken through mash tank mixing and extrusion. For this step Serasa Palm Oil Mill uses machines fruit return conveyor, digester, press, hydraulic power pack press, oil gutter / sand trap and vibrating screen as their equipment.

Step 6: Oil clarification

After screen and sand trap tank, the palm oil should be sent to the crude oil tank and heat, then be pumped continuous clarification tank to separate the purified oil which is sent to the pure oil tank and the sludge oil which be sent to sludge tank. For this step Serasa Palm Oil Mill uses Oil Feed Pump for Vacuum dryer, Sludge Vibrating Screen, precleared pump, air compressor, sludge oil recovery tank and rotors as their equipment.

Step 7: Water Treatment (Vacuum Dryer)

Generally introduced from a nearby river, water through settling, filtration, dosing and other processes to ensure that the water quality, but also to ensure oil quality. For this step Serasa Palm Oil Mill uses machines vacuum oil dryer and pump as their equipment.

Step 8: Oil transportation (CPO tank)

According to the actual situation, make crude palm oil pipeline and storage the CPO.

Step 9: Despatch

To loading at transporter to send for customers. Some companies that they send CPO among them are Mewah Oil SdnBhd, Sime Darby, Sawit Raya Kelantan dan PGE0 Lumut Oil Sdn Bhd.

Step 10: Mill weighbridge and security

Key in the data and checking the consignment the CPO.

Step 11: Refinery / Crushing plant

To process the CPO & Palm Kernel.

Crude palm oil standard:

FFA: $\leq 5\%$, Moisture: $\leq 0.1\%$, Dirt: $\leq 0.02\%$
Transcript 1: 34 - 38, 49 - 54, and 58 - 60

RO2:

To identify the problem in production and provide the solution for Serasa Palm Oil Mill.

To fulfil this objective, the researcher has created the following questions:

RQ2: What is the performance of direct activities in Serasa Palm Oil Mill?

a. Finding Related on Interview Data

The agricultural sector is one of the main sectors of the economy that is focused on world trade as it is a supplier of food and raw materials to people in Malaysia.

Agriculture is the third most important sector in contributing to national income. The emphasis on the agricultural sector has enabled the country to reduce dependence on imported food from abroad. In addition, the balance of export and import trade balance is balanced to strengthen the financial position of our country through the development of the agricultural sector.

This is because agricultural products are the main ingredient in the export of producing countries such as palm oil and palm oil. Malaysia is the second producer of the two materials as the government's efficiency advances the sector (Berita Harian, 2014).

According to a statement made by Mr Syafiq (2018), Serasa Palm Oil Mill still uses a number of machines that are relatively old and need to be upgraded to the use of the latest machines. Among the machines to be updated are press, FFB conveyor, and digester. Based on the respondents' facts, the researchers conclude that this situation will cause problems for the production of CPO and PK. This has affected the delay in completing the production process. In addition, the respondents also stated that the reduction in shovel also caused problems in the production of CPO and PK. Respondents also noted that shovels should be added to 2 units, as the use of shovels is needed to 2 different places, including boilers and sterilizers, and loading ramps.

Based on transcript 1 (108 - 118), the respondents stated that there were some other problems that could disrupt the production process of CPO and PK. Although the problem is not very significant, it will also affect the performance of the employees, slowing down the process due to the inefficiency of employees and delivery delays to customers. Through

interviews, respondents also noted that there were other problems arising, including staff shortages and stabilization of time and staff schedules. This is also an indirect problem that is rarely seen by some. Last but not least, problems that may delay the process and delay the delivery of CPO and PK are road access. This is a much worrying problem when the uncertain rainy season takes place around the Palm Oil Mill.

To all the solutions will be described in detail in chapter 5 that will solve all the issues that are relevant to the previous researcher's knowledge as a help to the research argument.

Discussion for the Future of Palm Oil

Improving worker productivity

Oil palm ranches by their inclination cannot depend intensely on motorization, depending fundamentally on a blend of high-talented and low-gifted work. This is both a quality of the business as a destitution mitigation instrument, yet additionally mirrors a shortcoming when there is a deficiency of work, as the business is presently encountering.

In response to these pressures, palm oil labourers will be provided with a combination of training and tools to assist in their work, including the use of a motorized harvesting pole, Cantas TM, to improve harvesting productivity, a diamond sharpening tool, and the use of the buffalo-assisted collection of FFBs (Star Online, 2015).

Expediting growth in food- and health-based downstream segments

Although the cutting-edge advancements and outfitting waste and biomass from the palm oil segment, there is additionally a high potential in setting up more nourishment and health-based downstream sections. Doing as such will build the estimation of Malaysian palm oil to residential industry and increment the estimation of palm oil-related exports. Furthermore, with new research finding staggering medical advantages of palm oil, Malaysia is ready to be a mind-boggling wellspring of supplements and health products for the world.

The Government of Malaysia will be providing tax incentives for Malaysian companies to acquire foreign food producers and undertake research and development and new product development (Department of Prime Minister, 2010).

Summary

In summary, this chapter explains and analyses the result and analysis being done by the researcher. The collected data are analysed based on coding which are to know about assessing the performance of direct activities in Serasa Palm Oil Mill. Descriptive summary and data of financial had also been explained in this chapter. The coming chapter will explain about recommendation and conclusion of this research.

CONCLUSION

Recommendations to Overcome the Problem

Obsolete the machine

a. Upgrade the machine there have.

Based on the solution found in transcript 1 (124 - 131) states that the respondent wishes to add in the shovel and renew the existing machine to the better according to the company's ability. Example the machines that need to be renewed are press, FFB conveyor and digester. For respondent's shovel, there are 2 places that require the use of a shovel, including loading ramp, boiler and sterilizer. In the event of this increase, the production process may also take a shorter time than now.

b. Innovation

Preparing palm oil yields high volumes of side-effects, especially biomass. While verifiable these were utilized to help to fertilize

of oil palms, different applications are additionally being found, particularly as second-age biofuels.

As of today, just 12 processes in Malaysia have set out on the advancement of biogas plants. Biogas plants will be created at the 500 factories throughout the following 10 years, with 250 plants focusing to supply power to the national matrix by 2020.

Accessibility to the workplace

a. Upgrade the road; by using the tar.

Based on my observation, there is a lack inaccessibility to the Palm Oil Mill. The road they are using is not circulated to perfection. After that, the situation will become more complicated when uncertain weather conditions. This can cause problems for incoming lorry to deliver oil palm fruit and delivery of processed CPO and PK. Therefore, as a solution, the company should discuss this problem with the relevant parties to increase the area of water and the main road tar leading to Serasa Palm Oil Mill.

Time and schedule of staff

a. Limitation of overtime for employees.

Based on transcript 1 (124-131), Mr Syafiq states that they sometimes have to replace other workers' places for undesired reasons, even though the work is related to operations that are not under the respondent's work area. Therefore, Serasa needs to set limits for each overtime worker. This will affect the employee's performance the next day if they do more working hours on a single day. This should be highlighted because the respondents stated that the respondents rarely go home at the time set by the workers.

Summaries

Based on the overall result, this study has resulted in a conclusion based on the objectives stated in chapter 1 (Introduction). There are two (2) objectives for this research, to identify the direct activities and to identify the problem in production and provide the solution at Palm Oil Mill. Activity definition refers to the process of parsing a project into a number of individual tasks which must be completed before the deliverables can be considered completed (Palmberg, 2008).

Based on interviews conducted by investigators, it can identify any activity directly through an explanation of the processes and equipment used to produce eligible CPOs. In addition, commentators also commented on the performance supplied by Serasa Palm Oil Mill to the country through the production of CPO. This is explained in Chapter 4 (Discovery and Discussion), researchers have found several forms of contribution provided by the Palm Oil Mill to the country, including through problem they have in Serasa Palm Oil Mill and the researcher also provided the solution for them. In addition, Serasa Palm Oil Mill also provides employment opportunities for villagers to avoid unemployment. Each of these contributions has been described in detail in the previous chapter.

To conclude, the researchers concluded that direct activities were one of the contributors to the national economy through tax payments and CPO sales. Explain that researchers can also achieve objective goals. While researchers believe that this study is ready to help future researchers and studies. Researchers may also wish to express their appreciation to all relevant parties in assisting in completing this study.

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