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**ANALISIS DAYA SAING DAN DAMPAK KEBLIJAKSANAAN
PEMERINTAH TERHADAP DAYA SAING PERUSAHAAN
KELAPA SAWIT INDONESIA**

Oleh :

SAHAT BARITA SIMANJUNTAK



**PROGRAM PASCASARJANA
INSTITUT PERTANIAN BOGOR**

1992

SUMMARY

SAHAT BARITA SIMANJUNTAK. Analysis of Competitiveness and Impact of the Government Policies on the Competitiveness of Indonesian Palm Oil Enterprises (Under supervision of RUDOLF S. SINAGA as the Chairman and BARIZI, TIAHJADI SUGIANTO and ACHMAD SURYANA as Members).

The objectives of the study is to analyse competitiveness and its influencing factors on competitiveness of Indonesian palm oil products in international trade (export).

Two indicators applied in order to analyse the competitiveness were :

- (1) Indicator on financial analysis using Return on Investment (ROI). Strength of the ROI is used as a criterion to indicate the competitiveness by calculating a risk premium needed by investors in palm oil enterprises.
- (2) Indicator on economic analysis using a Domestic Resource Cost (DRC) or DRC Ratio. The Domestic Resource Cost reflects the amount of domestic resources used to earn one unit of foreign exchange, in this case is 1 US \$ estimated by a shadow price. The amount of DRC or DRC Ratio shows whether or not there is a comparative advantage for palm oil business and its down stream industry in the international trade or in foreign exchange earning.

There were 16 enterprises selected as samples. Six out of the samples were State Owned Companies (PTPs) possessing 85 percent of the total productive crops, 3 of them were Foreign Private Companies having 100 percent of the total productive crops and those 7 of them were National Private Companies having 13 percent of the total productive crops. The longest collected data related to the company's ROI covered series time data from 1968 - 1989 (22 years) and the shortest was 3 years for productive National Private Companies. There were, therefore, the analysis time period was divided into 4 periods.



In order to analyse influencing factors of the competitiveness two types of analyses were applied:

- (1) Analysis on influencing factors in the plantation/field level (crops and processing fresh fruit plant). In this case an analysis model of Profit Function was used according to Lau-Yotopoulos with Cobb-Douglass Production Function. This analysis required data from 37 plantation samples included into the three types of the enterprises. Total observation amount was 203 (1 observation = 1 year observation in one plantation).
- (2) Analysis on influencing factors at the company's level was made in order to refine and complete the analysis on influencing factors at the plantation level. This was done by analysing factors affecting ROI and DRC of the company at various periods made when the data were available.

Two approaches were applied in order to analyse impact of the government policies on the competitiveness of palm oil enterprises. The approaches were :

- (1) Analysis method using Policy Analysis Matrix (PAM) for the period of 1985 - 1989.
- (2) Tabulation and descriptive analysis method for the period prior to 1985.

Sensitivity analysis was also executed to examine impact of various changes on the enterprises competitiveness.

The results of financial analysis at the PTP group showed that the ROI sharply declined since 1979, so that in the period of 1979-1989 the PTPs were feasible to run the business (break even) at an interest rate of 16 percent and at the period of 1986-1989 was feasible only at the rate of 12 percent. Thus PTPs' financial competitiveness was very weak due to the deposit interest rate was far too high (17 - 24 %).

The Private Foreign Companies on all periods of 1968-1989 kept the ROIa (ROI before tax) for 65 percent or in other words they owned a very strong competitiveness at a very high interest

rate (24 %). In the group of The National Private Companies processing fresh fruit had not yet feasible at 12 percent interest rate neither in the period of 1982-1989 nor in the period of 1986-1989. In the mean time, the ROI of National Private Companies which did not process fresh fruit increased for the period of 1986-1989 compared to that at the period of 1982-1989, so that they had been feasible (break even) at the interest rate of 12 percent.

The economic analysis reveals that the export at current prices by the period of 1985-1989 (fob prices) for CPO and palm kernel of the PTPs in the international trade still showed a comparative advantage. The Foreign Private Companies group at the same period owned a very solid comparative advantage, far too solid from the PTPs. The above facts indicated that in the very low price period such as in 1986-1989 the CPO dan palm kernel commodities kept possessing a comparative advantage as export commodities and good managed enterprises owned potencies to gain strong economic advantage in exporting CPO and palm kernel. National private companies processing fresh fruit had not yet owned a comparative advantage due to low productivity of the crops and the plants that have just been established.

Further processed products of its down stream industry (processing of CPO and palm kernel) for export market since the period of 1986-1989 and at most years, while at the prior periods have not yet given financial profit for all enterprise groups (PTP and Foreign Private Companies), even they experienced a very big loss.

Almost all down stream industries had not yet owned comparative advantage to earn foreign exchange during the period of 1985-1989. Thus, the existence of the down stream industry could not be relied on as a strategy to increase the competitiveness and comparative advantage of CPO and palm kernel trade at international market.

This was caused by two important factors, i.e. : (i) different selling price of down stream products from the selling price of export raw materials (CPO and palm kernel) that was generally

not big enough, (ii) down stream production cost (processing, transportation, marketing, etc.) was usually high.

The results of the profit function analysis at the plantation level gave some conclusions. The most important among other things were :

- (a) Plantation which processes fresh fruit (UOP1) at the Foreign Private Companies owning plants (wide and narrow) significantly possess higher relative economic efficiency (joint technical efficiency and price efficiency) compared to that of other groups. This clarifies at part why the Foreign Private Companies' ROIa was higher than that of PTP's.
- (b) Plantation which did not process fresh fruit (UOP2) at Foreign Private Companies and PTPs significantly own higher relative economic efficiency than the National Private Companies and it was also consistent with the lower National Private Companies' ROIa compared to other groups.

The reasons why the relative economic efficiency was higher at the Foreign Private Companies were :

- (i) the technical efficiency was higher and the absolute price efficiency was reached (allocation of variable inputs that was optimal/almost optimal) at the cultivating activities.
- (ii) fresh fruit processing efficiency was higher.

The reasons why relative economic efficiency at the National Private Companies was lower were :

- (i) technical efficiency was lower and it was reflected by among other things lower productivity
- (ii) relative price efficiency was lower

- (c) Except the Foreign Private Companies which did not process fresh fruit, all other groups did not gain short term maximal profit (absolute price efficiency). This also reflected that in the cultivating activity, variable inputs allocation at the Foreign Private Companies had been optimal or nearing optimal and at the same time it was also a reason why Foreign Private Companies' ROIa was higher. This also implied that there were some opportunities to increase the efficiency in cultivating and processing activities for other groups (PTP and National Private Companies).
- (d) Intercept test for relative economic efficiency at all groups showed significant differences between year which means relative economic efficiency increases every year. This reflected that there was continuous increasing technical efficiency at the Palm Oil Enterprises in Indonesia.

In the mean time, coefficient test (slope) for variable inputs at groups that did not own fresh fruit processing plants, and all groups that did not process fresh fruit was not significant between its time (1984 - 1989 period).

This means that variable input parameters of the above mentioned groups was constant or relatively constant for short terms time (5 years).

The analysis at the company level showed that the most influencing factor to determine the financial competitiveness (ROIa) were production cost and fixed capital (assets) for each kg of the product (CPO and palm kernel). While the average product selling price (CPO and palm kernel) per each group of the enterprises per year was not so different and it did not own correlation with the ROIa between company groups. According to the time series, however, the product price of medium terms and short terms were highly correlated with the ROIa of each company.

In terms of production cost, infact PTP's production cost (CPO and palm kernel) since 1979-1989 had been always higher than that of Foreign Private Companies, while the National

Private Companies since 1982-1988 had always been higher than that of PTP's.

The most determining factors of the production cost per company group were : (i) fresh fruit productivity/Ha, (ii) increasing prices of several production inputs mainly labor wages, fertilizer price and processing cost, (iii) increasing fixed cost or other variable cost except plantation variable cost, mainly miscellaneous cost at the PTP and (iv) existing variable production input allocation.

Total production cost structure which was divided into 6 cost components where the big three components for all company groups in 1989 were for cultivation cost, depreciation cost and product processing cost. The cultivation cost ranged by 43.62 - 59.07 percent, depreciation cost ranged between 21.13 - 25.22 percent and processing cost ranged between 11.25 percent and 13.09 percent.

Production cost structure changes in the last 10 years (1979 -1989) for the PTP were quite big on increasing depreciation cost and miscellaneous cost while for Foreign Private Companies were on cultivation cost and depreciation cost.

In PTP, the fixed capital/Ha of the productive crops or per kg of the product increased quicker, bigger and was always higher every year compared to those of the Foreign Private Companies. This was caused mainly by quicker increasing investment cost at PTP. Fixed capital or investment cost per Ha at the National Private Companies processing fresh fruit was higher than that of the National Private Companies which did not process fresh fruit because of the existence of the plants and cultivation areal which were not very wide.

Factors influencing average cultivation productivity each year for every company or plantation were variety of the crops, age of the crops dan age composition of the crops. Arrangement of planting area and age composition of the crops were required in order to gain high cultivation productivity each year, so that average optimal crop age and high crop age composition index were gained.

In the period of 1985 - 1989, total government policies impact on palm oil enterprises was to give negative net transfer or applying net tax on PTPs and Foreign Private Companies. Subsidy for the National Private Companies was still given, but in 1989 the net tax had also been applied for it.

In other words the impact of the government policies was generally to deduct financial competitiveness of the enterprises, mainly in income tax (PPh) and other taxes. Nevertheless, the PPh strongly affected on the decreasing company financial profit so that net ROI could be very low but on the other hand, the government gave another opportunity by giving deducted PPh or tax facilities (fiscal facilities).

In the mean time, although the PPh was 35 percent and more for years prior to 1984, but the Foreign Private Companies group still could gain high net ROI (because of high or very high competitiveness at 24 % interest rate). This was caused by production cost and fixed capital at the Foreign Private Companies could be kept small.

Prior to 1985 the impact of the government policies which was generally decreased the competitiveness of the palm oil enterprises among other things the tariff of PPS that was higher prior to PPh in 1984, other big taxes and regulation on domestic selling allocation of CPO since 1978 which significantly limited export. Consequently, business development and palm oil product export were obstructed much, so that Indonesia did not benefit the good momentum of high export price prior to 1985.

On the other hand, several government policies also increased company financial competitiveness, among other things fertilizer subsidy, fuel subsidy, low tariff of land right (HGU) and low land taxes (Ipeda, PBB) and lower interest rate credit compared to commercial credit interest rate.

The very important government policies to increase financial competitiveness and comparative advantage at a time in CPO and palm kernel export was to increase the ability of conducting research and producing high yielding varieties through State Owned Center for Palm Oil Research and establishing transportation infrastructures and telecommunication.

The sensitivity analysis using profit function gave several conclusion, i. e. :

- (i) production optimization impact at various company groups could decrease total production cost and increase company's ROIa meaningfully. In this case, the most affected groups were PTP and National Private Companies.
- (ii) Subsidy deduction or subsidy elimination for fertilizer and fuel (100%) would not decrease ROI or company's competitiveness meaningfully. Thus, the companies would not too rely on these subsidies and the government's burden would be alleviate due to the deducted subsidies.
- (iii) impact of decreased miscellaneous cost up to 30 percent and decreased fixed capital up to 20 percent were very meaningfull for PTP. Joined impact of variable inputs optimization, deducted miscellaneous cost for 30 percent and decreased fixed capital for 20 percent could increase the PTP's financial competitiveness into minimumly feasible (break even) at the interest rate of 20 percent and maximally more than feasible at the interest rate of 24 percent.

In order to overcome visible problems these time and to anticipate future problems, the following suggestions are presented :

- (1) Increasing PTP's financial competitiveness (ROIa) was very crucial, among other things by:
 - (i) Decreased production cost at the company level, and at the plantation level by improving variable input allocation to each improving production optimization.

- (ii) Decreased New Cultivation Investment Cost and rehabilitation to decrease fixed capital.
- (2) High competitiveness of the Foreign Private Companies should be maintained or even increased by various policies. The existence of the foreign company should be kept as a standard of efficiency, technology source and source of capital of cultivating expansion.
 - (3) Some efforts should maximally be made in order to increase financial competitiveness of the National Private Companies either the one who owns PKS or the one who does not by various policies and better company management.
 - (4) The palm oil comparative advantage should be maintained and increased dynamically mainly by increasing productivity and creating high yielding varieties which productivity potency is higher. Available potency in increasing high yielding varieties should be maximally utilized by promoting research and development.
 - (5) The existence of comparative advantage of the down stream industry processing CPO and palm kernel should be furtherly studied as soon as possible. In line to that some efforts to increase the comparative advantage of the down stream industry should be made.
 - (6) Several government policies affected financial competitiveness and increasing comparative advantage should be more refined. It could be done by among other things avoiding obstacles in marketing chain and creating regulation on more flexible taxation.
 - (7) A series of government policies should be launched in order to anticipate possibilities of price and demand decrease of palm oil products that is imbalance with the supply of vegetable oils, among other things by making efforts for higher productivity of each palm oil crops and intensifying research and development of new products from CPO and palm kernel.
 - (8) Various further research uncovered by this study should be still conducted.