

# Effectiveness of Market Results Diversified Palm Products and Constraints of Capital, Financing and Marketing

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**Abstract**—The purpose of this research is to know the effectiveness and constraints of Capital, Financing and Marketing of Diversification of Palm Products resulting from the development of Regional Innovation System. The type of this research is explanatory survey and analyzed with quantitative descriptive. Respondents are business perpetrators of palm products derived 167 respondents. This research is conducted by conducting primary data survey from upstream and downstream of diversified Crude Palm Oil (CPO). The results show the weakness of marketing network system and capital to the utilization of diversification of derivative products in the scope of Regional Innovation System.

**Keywords**—Capital; Financing; Network Marketing and diversification of palm oil derivative products.

## I. INTRODUCTION

Oil palm plantations managed by the people have limited land area, will produce a limited number of fresh fruit bunches so sales are difficult to sell if they want to sell them directly to the industry [1]. Therefore, farmers must sell village level traders close to the location of the garden or through the Cooperative, then to the wholesalers to the processing industry. The length of the marketing chain on smallholder estates causes the level of profit earned by farmers is relatively small. The marketing of fresh fruit palm fruit bunches has become one of the constraints of the self-help smallholders to date. Growing TBS direct sellers' access to palm oil companies or factories is still difficult so that dependence on middlemen is very high. Direct sales can be done if it has cooperated with various terms or partner with the Plasma. The rules of the company become one of the obstacles, as well as the weak bargaining position of smallholders as a capital for cooperation. Therefore, efforts are needed to increase farmers' income by fostering and shortening marketing distribution. The government regulates the function of each actor in the marketing chain with accompanying profitable marketing margin arrangements for each of the actors in the marketing

chain with accompanying marketing margin arrangements along with profitable marketing margin arrangements for each of the actors.

## II. METHOD

This study uses primary data. The hypothesis was tested by using Structural Equation Modeling (SEM) with SMART PLS software. The data analysis technique in this research employed Structural Equation Modeling (SEM). SEM is a set of statistical techniques allowing testing of a series of relationships simultaneously. Furthermore, in the data processing, the writer used the aid from software SMART-PLS Structural Equation Modeling, which was one of the multivariate analyses capable of analyzing the variable relationships in complex manner [8], [12], [13], [14], [24], & [25].

The hypotheses were tested using Structural Equation Modeling (SEM) with Smart-PLS software tools. The equation is formed as follows:

$$Y = \alpha + b_1X_1 + b_2X_2 + b_3X_3 + e$$

X1	= Capital
X2	= Financing
X3	= Marketing
Y	= Development of Regional Innovation System
b1, ... b3	= Coefficient
$\alpha$	= Constant
e	= Error

This phase is done to test the suitability of the model to evaluate the goodness-of-fit index [30], [31], [30], [35] & [42]. Analysis using SEM requires some suitability index to measure the correctness of data and models to be filed.

**III. RESULT AND DISCUSSION**

**A. Result**

Inner model evaluation through the bootstrapping menu also generates T-statistics values that will be used to test the hypothesis. The criteria are  $T\text{-statistic} > 1.66$  [3], [18], [26], [34] & [36]. The result of T-statistics value in the table path coefficients is presented in the following figure:

Figure 1. T-statistics value

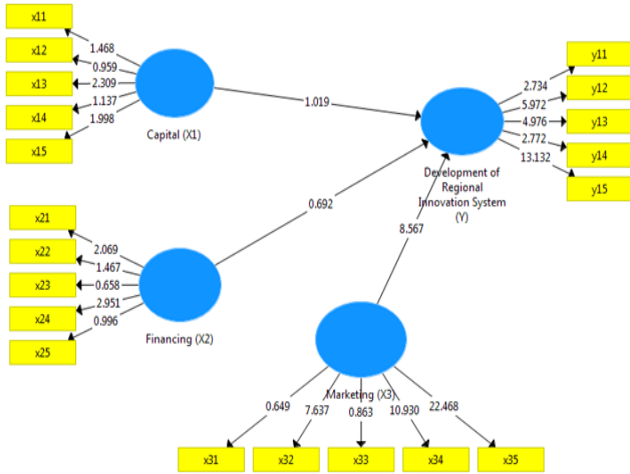


Table 1. The result of bootstrapping

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics	P Values
Capital (X1) -> Development of Regional Innovation System (Y)	0,112	0,104	0,110	1,019	0,309
Financing (X2) -> Development of Regional Innovation System (Y)	0,076	0,121	0,110	0,692	0,489
Marketing (X3) -> Development of Regional Innovation System (Y)	0,593	0,585	0,069	8,567	0,000

Based on the test results show that a good marketing system will increase the Development of Regional Innovation System. Capital and Financing variables have no significant effect.

Figure 2. Capital (X1)

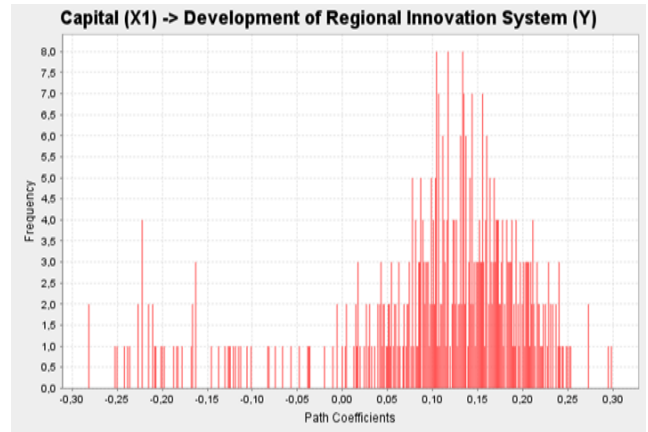


Figure 3. Financing (X2)

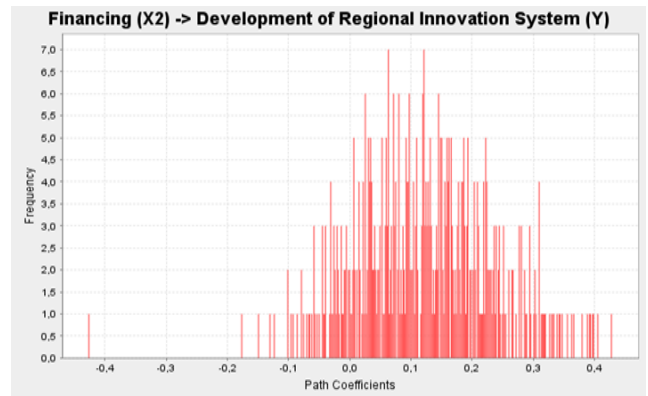
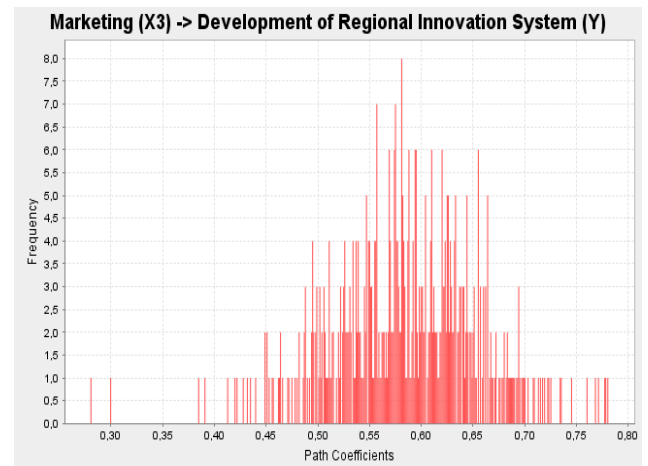


Figure 4. Marketing (X3)



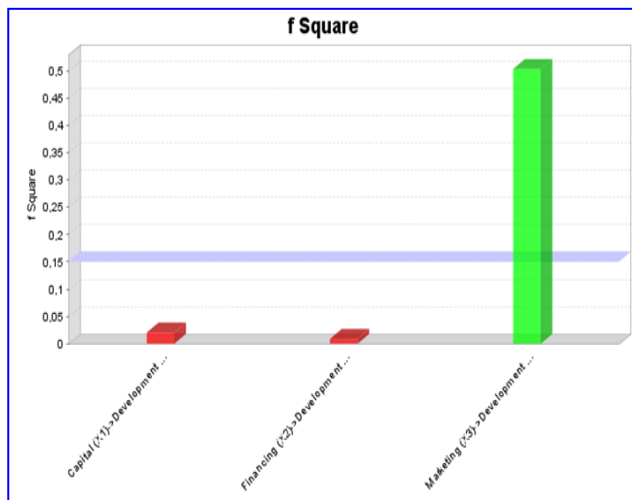
Based on the above table the indirect effect produces coefficient of 0.005, smaller than 1.66 ( $\alpha = 5\%$ ) then the decision of hypothesis testing reject  $H_0$  and accept the hypothesis  $H_a$  [37]. In addition to hypothesis testing through the bootstrapping menu that produces T-statistics, inner model evaluation is also done by reviewing the R-Square value [27],

[28]& [29]. The R-square value generated from the inner model evaluation is presented in the following table:

Table 2. R-Square Value

	R Square	R Square Adjusted
Development of Regional Innovation System (Y)	0,440	0,430

Figure 5. F-Square Value



**B. Discussion**

Facilitated by the Government to cooperate with plantation business actors, marketing associations, commodity associations, commodity councils, other institutions and/or the community. The cooperation is carried out by organizing market information, promotion, and developing the marketing center of plantation commodities, both inside and outside the country [43]&[44]. In conducting marketing cooperation with companies, the institutional identity of the smallholders should be clear and documented through documents procedure or certificate from the Plantation Office showing the institutional formation of smallholders, whether in the form of cooperative enterprises with legal entities or groups of smallholders [38], [39],[40]&[41]. Institutional planters also have documentation of the plantation members accompanied by land area, age of palm plantation, and other information related to the profile and data of the planters. Institutional planters can strengthen the bargaining position of smallholders in marketing cooperation with companies [17]. The institutional planters function to unify the approach of the cultivation system at the level of different self-supporting smallholders and not integrated in sustainable development [23]. Ideally, the cooperation of marketing by the self-supporting smallholders with the companies is done through the institutional self-help smallholders, either in the form of farmers 'groups or planters' cooperatives, which are experienced. Because institutional planters have an important role in doing things such as service functions in plantation cultivation systems, facilitation of access to financial institutions, government, companies to market access.

Organizational growers become the most important indicators in strong institutions, planters can unite and collectively develop alternative systems in smallholder plantations as well as an easy requirement in the sale of self-help smallholder farmers. By organizing independent smallholders who have been scattered can consolidate their institutions in a sustainable approach. This approach can be done through capacity building of planters, applying GAP practices well based on sustainability principles [21]&[22]. Through these institutions, identification of the number of independent smallholders, plantation area of each member of the self-help smallholders, sales partner information, and information about the percentage of production tonnage [15]. One aspect that needs to be analyzed related to market identification is how to face market demand for palm oil industry stakeholders, including one of them self-help smallholders, on market commitment and demands for sustainable palm oil supply [2], [4], [5]&[33]. This demand is one of the conditions ahead in implementing the sales cooperation TBS smallholders to implemented or committed in the approach of sustainable palm oil.

In addition, efforts to improve the productivity of oil palm growers can be done by granting loans from bank institutions and financing institutions. Credits can be granted on bail or unsecured [6]&[7]. Unsecured credit is very dangerous to the bank's position, considering that if the customer experiences a traffic jam it will be difficult to cover the losses on the loan disbursed [9], [10]&[11]. Conversely, with credit guarantees is relatively safer considering any bad credit will be covered by the guarantee. Unsecured credit is a solution where credit is not given by guarantee of certain goods. Usually given to companies that really bonafit and professional, so the possibility of credit is stuck very small. It can also be unsecured credit only with an assessment of its business prospects or with consideration for weak economic entrepreneurs.

**IV. CONCLUSIONS**

The results show the weakness of marketing network system and capital to the utilization of diversification of derivative products in the scope of Regional Innovation System.

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