

Performance Measurement Analysis of Palm Cooperative Cooperation with Using Balanced Scorecard

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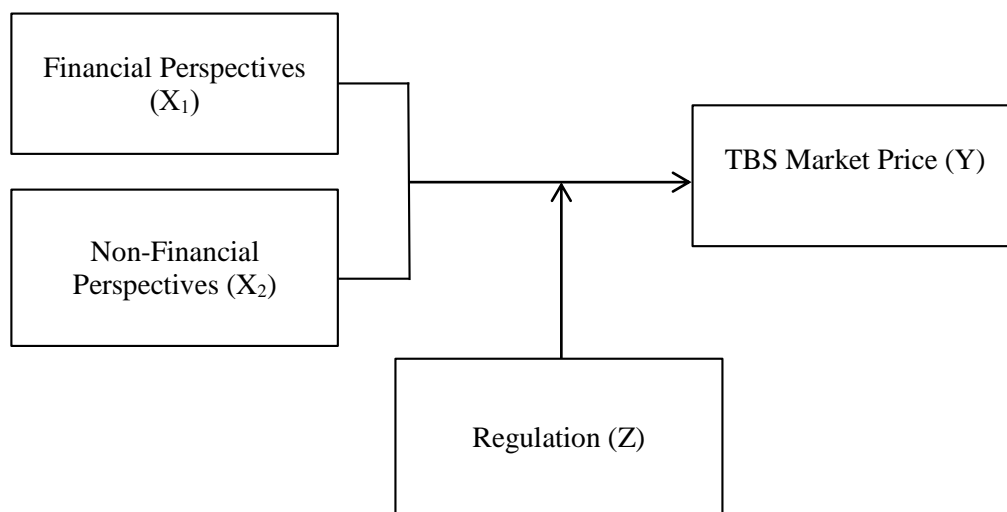
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Abstract. This study aims to analyze the performance of Palm Oil Cooperative with Balanced Scorecard approach. This type of research is descriptive quantitative. The data used are primary data in the form of Financial Report of Palm Oil Cooperative in North Sumatera. The population and samples used are some Palm Oil Cooperatives in North Sumatera. Analysis used with performance indicators Balanced Scorecard. The results show that the role of Financial Perspectives has a significant effect on the formation of the Fresh Fruit Bunch (TBS) Market Price mechanism. While the variable of Non-Financial Perspectives has no significant effect to the formation of TBS Market Price mechanism. The significance of Financial Perspectives variables is caused by the Regulation variable as a moderating variable.

1. Introduction

The existence of cooperatives that are specialized in the field of palm oil commodity, is expected to make all its members become established from an economic point of view, and cooperatives are more involved in micro enterprises. The Government has arranged in terms of ownership and shares which require ownership of 5 to 30% of the shares of palm oil processing companies as stipulated in the provisions of the Minister of Agriculture article 14 permentan no. 98 of 2013 on Plantation Business Licensing Guidelines. The regulation is not running optimally and in the field of many obstacles encountered. The main constraint is facing corporation palm oil companies in the area is a constraint palm cooperation in the region. In order to overcome these problems, it is necessary to measure performance that can help the palm cooperative to increase capacity in running its business [1]. Balance scorecard method introduced by Norton Kaplan needs to be applied to cooperatives, especially palm Cooperation [2]. The problem of palm oil prices in the year that does not increase is a problem that is often complained cooperation of palm. Balanced scorecard needs to be applied to palm cooperation to overcome the problems faced not only measure the performance of a business from a financial perspective, but also from Non-financial perspectives such as customer perspective, business processes, and learning and Growth company [2,3,4]. Therefore, balanced scorecards help companies to Achieve its long-term strategic goals through harmonized measures with the company's vision, mission, values, and strategy. The model developed from the theories was:



**Figure 1.** Research Model

2. Methods

This study uses primary data. Respondents are businessmen and palm business actors, especially managers and managers of cooperatives. The hypothesis was tested using Structural Equation Modeling (SEM) with the aid of 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 [5,6,7,8]. Furthermore, in the data processing, the writer used the aid from software AMOS Structural Equation Modeling, which was one of the multivariate analyses capable of analyzing the variable relationships in complex manner. The definition of research variable is as the following:

Table 1. Operational Variable

Variables	Operational Definitions	Indicator	Scale
TBS Market Price (Y)	A part of palm oil production which is the initial product which will be processed into crude palm oil as the main product besides other products.	Market price movement per Kg Rupiah	Interval
Financial Perspectives (X ₁)	Planning and execution of the company's strategy of improving the company's profits. Improvements are reflected in targets that specifically relate to measurable gains, business growth, and shareholder value.	Perceptions of growth or sales turnover are relatively average farm production	Interval
Non-Financial Perspectives (X ₂)	Perceptions of buyers' growth, business processes, learning and internal business	Growth, business processes, learning and internal business	Interval
Regulation (Z)	Government policy regulates the price of palm oil governance	Law regulatory about Palm Oil Business	Interval

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

$$Y = \alpha + b_1X_1 + b_2X_2 + e \dots\dots\dots (1)$$

$$Y = \alpha + b_1X_1 + b_2X_2 + b_3X_1.Z + b_4X_2.Z + e \dots\dots\dots (2)$$

Where:

Y	= TBS Market Price
X ₁	= Financial Perspectives
X ₂	= Non-Financial Perspectives
Z	= Regulation
b ₁ , b ₂	= Coefficient
α	= Constant
e	= Error

This phase is done to test the suitability of the model to evaluate the goodness-of-fit index [9,10]. Analysis using SEM requires some suitability index to measure the correctness of data and models to be filed.

3. Results

3.1. Measurement model

The measurement model links between latent variables with manifest variables as follows:

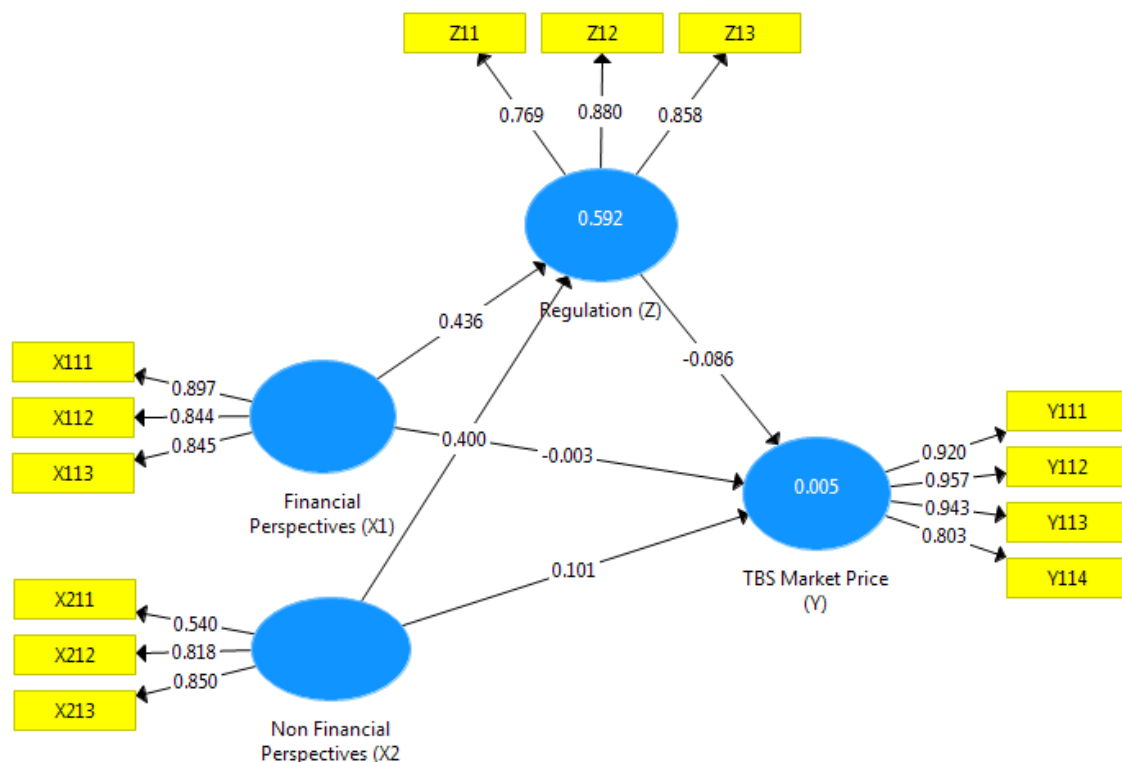


Figure 2. Standardization Coefficient

Inner model evaluation through the bootstrapping menu also generates T-statistics values that will be used to test the hypothesis. The criterion is T-statistic > 1.96 [11,12,13]. The result of T-statistics value in the table path coefficients is presented in the following Table:

Table 2. *Path Coefficients*

	Financial Perspectives (X1)	Non-Financial Perspectives (X2)	Regulation (Z)	TBS Market Price (Y)
Financial Perspectives (X1)			0,436	-0,003
Non-Financial Perspectives (X2)			0,400	0,101
Regulation (Z)				-0,086
TBS Market Price (Y)				

Sources: PLS Output, (2017).

Based on the model concluded that the role of Financial Perspectives (X1) has a significant effect on the formation of TBS Market Price (Y) mechanism. While the variable Non-Financial Perspectives (X2) did not significantly influence the formation of TBS Market Price (Y) mechanism. The significance of the Financial Perspectives (X1) variable is due to the variable Regulation (Z) as a moderating variable that strengthens the relationship between the variables. The magnitude of the role of variable Regulation (Z) of 40% that strengthen the relationship between independent variables with the dependent variable. It is shown from the level of significance in the alpha 5%.

4. Discussion

The price determined entirely by the market as well as government policies, the characteristics others from the CPO industry are capital intensive. Identification of product quality continuity and Services according to quality standards and customer desires, the entire evaluation agreements that have been arranged in the contract of sale, evaluation of after service Selling especially in the settlement of complaints, reviewing the effectiveness of the path communication, If the investment stops in the second year, for example, then all the invested capital will be lost. In addition, to build the character of human resources in oil palm cooperatives as well as improve human resource competence and expertise, need to also manage its human resources [4]. This management is built with the base of teach and learn as the foundation of value creation effort. Enhancement competence and expertise of cooperative human resources can also be done with Organize and participate in self-development & self- Basic discipline directed at character formation, knowledge enhancement, Improvement of technical skills, learning tasks, quality management and innovation, as well as improvement of external relationships organized through training activities, courses, seminars, training, workshops, workshops, training, and rotation and enrichment in order to be competitive and sustainable [14]. Some problems of cooperatives engaged in the sale and purchase of palm products are a large profit margin, while the commodity is easy to produce; A large and growing international demand as the global population increases. The cost of producing crude palm oil (CPO) in Indonesia is the cheapest in the world, higher productivity levels than vegetable oil products. The use of biofuels is expected to increase significantly, while besin use is expected to decrease. The biggest challenge of implementing ERP in the palm oil industries in Indonesia lies in the industry's consciousness that they need increased efficiency and Effectiveness in every ongoing business process [15,16]. In Malaysia, all the palm oil industry has taken advantage of IT [3,8,17,18,19,20]. They received full support from the Malaysian government that woke up the infrastructure Communication in oil palm plantation and processing areas. Companies should also prepare Device required to support this application. Most devices Critical, in addition to the preparation of IT-literate human resources, is a data communications network. Palm information system is absolutely necessary especially the application on database and software design. Software applications that integrate all. Departments and functions of a company into a single computer system that can serve all the needs of cooperatives is urgent to apply to cooperatives in North Sumatra, whether from the sales process of cooperatives, research, production or finance. So, the goal of Enterprise Resources Planning (ERP) can apply the necessary modules, combined and customized from different suppliers, and can add new modules to improve the performance of the palm business.

5. Conclusion

The results show that the role of Financial Perspectives has a significant effect on the formation of the Fresh Fruit Bunch (TBS) Market Price mechanism. While the variable of Non-Financial Perspectives has no significant effect to the formation of TBS Market Price mechanism. The significance of Financial Perspectives variables is caused by the Regulation variable as a moderating variable.

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