ABSTRACT

This research uses a quantitative approach to obtain data that can be statistically processed, thus providing objective answers to the formulated problems. The objects of this study are palm oil production, palm oil export value, and Gross Regional Domestic Product of the plantation sub-sector. The analytical method used in this study is multiple regression with the *Autoregressive Distributed Lag Model* (ARDL). The ARDL method is a combination of the (*Autoregressive and Distributed Lag*) models. The results show that GRDP of the plantation sub-sector in North Sumatra Province is influenced by two main variables: palm oil production and palm oil export value. Palm oil production has a positive coefficient of 6.750005 with a probability value of 0.0000, while palm oil export value has a positive coefficient of 0.000753 with a probability value of 0.0061. Both variables have a positive and significant effect on GRDP, as evidenced by a p-value <0.05. This significance indicates that the relationship is not due to chance but rather has a statistically significant correlation. Therefore, the results of this study confirm that increasing palm oil production and exports can drive GRDP growth in the plantation sub-sector. These findings are relevant as a basis for formulating strategies and policies for developing the plantation sector in the region.

Keywords: ARDL, Palm Oil Export Value, Palm Oil Production, Gross Regional Domestic Product (GRDP), Plantation Sub-Sector.