

INTRODUCTION

Background

Energy needs in Indonesia today, especially in the use of LPG (non-subsidized) gas is quite rapid. Because of the increasing community needs and also government regulations that prohibit the use of 3kg of gas for groups of capable people and small and medium enterprises. Within a year, Pertamina often changes the selling price of LPG (non-subsidized) gas. Because the price of the dollar rises as well as world oil prices soar, this makes Agents often feel disadvantaged because it will reduce the company's profits and inhibit the distribution of LPG gas (non-subsidized), therefore the Agent must be able to monitor LPG inventory in the warehouse. As an LPG gas distributor agent there are many factors that must be considered, one of which is the availability of LPG gas supply (non-subscriptions). The unstable supply of LPG (non-subsidized) gas will certainly disrupt the distribution to the public. Therefore linear regression methods can be implemented precisely to overcome these problems.

Simple linear regression methods are used for modeling predicted variables such as the number of items as dependent variables, and independent variables that are linear. where the relationship between the independent variable X and the variable sought is the Y equation in a fixed manner. The purpose of this algorithm is to predict the supply of LPG (non-subsidized) gas.

Based on the above research explain the case of the availability of goods needed by each region. With the linear regression method can produce an application that is able to predict the amount of LPG gas supply (non-subsidized).

Scope

The Linear Regression algorithm will be implemented into this program. This program will process sales data on previous month to predict inventory for the following month. The data used is recapitulation of LPG (non subsidi) gas sales data during 2017 at Agen PT. Kerja. The formulated problem question.

1. How to calculate the inventory predictions using sales data using linear regression algorithms?
2. Present the data in a graphical form
3. Predict the number of items based on sales for the following month based on data from the previous month.
4. Calculate the accuracy of forecasting data with existing factual data.

Objective

The purpose of this final project is to create a system that can predict the supply of LPG gas (non-subsidized) and present the results in graphical form and present error percentage to determine the accuracy of predictive data on factual data.