

CHAPTER 1

INTRODUCTION

1.1. Background

Walmart, which is known as a retail store, provides the fuel needed for everyone's driving. Walmart itself wants to predict sales accurately. There are certain events and holidays which impact sales on each day. The business is facing a challenge due to unforeseen demands and runs out of stock sometimes, due to the inappropriate machine learning algorithm.

An algorithm is needed to determine the number of sales each week. With this prediction, the seller knows the results and changes in sales every week whether there are holidays or not. The algorithms used in this calculation are Tree and Random Forest which are processed in the Orange application.

The collected data will be processed using the Tree and Random Forest algorithm which is processed in the Orange application to predict weekly sales at Walmart. In the Tree and Random Forest, after calculating the data that has been obtained from each of these algorithms, the data is compared with each algorithm to see which score is good.

1.2. Problem Formulation

In this project, only a few issues will be explored.

1. Can the Tree algorithm predict weekly sales effectively?
2. Can the Random Forest algorithm predict weekly sales effectively?

1.3. Scope

The data used is fuel price data and uses two algorithms, namely Tree and Random Forest.

1.4. Objective

The purpose of this research project is to make it easier for sellers to predict the selling price every week and calculate the accuracy of the two algorithms, namely the Tree algorithm and the Random Forest algorithm, which are processed in the Orange application.