Abstract

The work of this thesis primarily revolves around the concept of forecasting the daily exchange rates of the United States Dollar versus Rwandan franc. Forecasting is a relatively important issue in business operations, however it is also one of the most problematic. With the uncertainty of the future, forecasts are difficult to rely on. The aim of this thesis is to analyze some of the forecasting models used on exchange rates, and determine which one of the forecasting models properly work when applied to exchange rates, why or why not, and their measure of accuracy. The methodology of this thesis revolves extensively around quantitative research. Exchange rates values from January 2015 to the end of April 2018 were collected and recorded to form a data set. The exchange rate data was then used in the application of a variety of mathematical forecasting models to forecast the daily exchange rates for a future, one-month period. Upon measuring the accuracy of the forecasts, the forecasted exchange rates contained very little error. Therefore, the forecasts are considered to be successful, and the hypothesis that exchange rates could be determined with the aid of a mathematical forecasting model is accepted. Though it is very difficult to consistently estimate exchange rates successfully, the work of this thesis shows there is always a greater probability of benefiting from a forecast.