
Saudi Arabia Exchange Prediction Using Time Series Analysis Techniques

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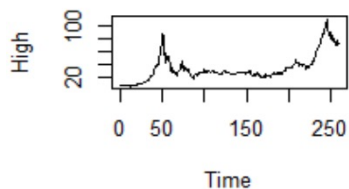
Data Description

Most Active By Value

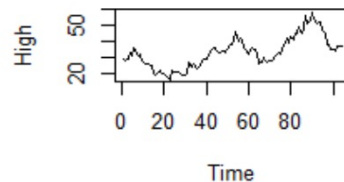
Company	Close Price (SAR)	YTD % Change	Value Traded (SAR)
ALRAJHI	75.20	-15.17 %	137,009,881,282.90
SAUDI ARAMCO	32.10	-1.41 %	72,691,374,698.30
ALINMA	32.55	35.85 %	67,402,651,489.99
SABIC	89.40	-22.93 %	66,671,429,320.00
SNB	50.50	-21.58 %	65,502,992,903.10

- Saudi Exchange
- Market Structure
- Data background
- Range of Data

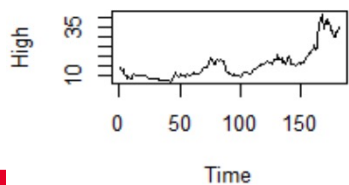
AlRajhi



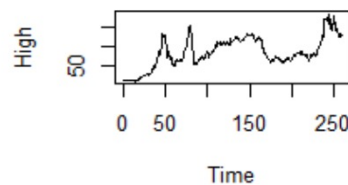
SNB



Alinma



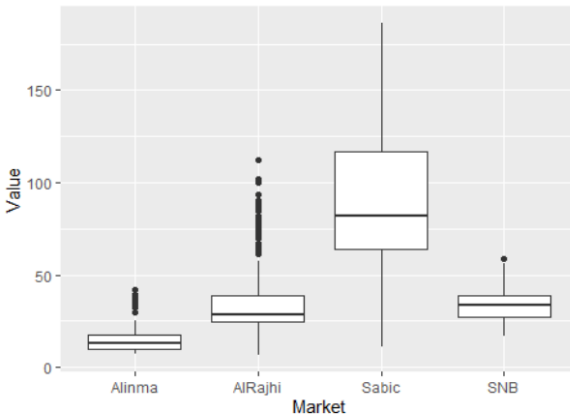
Sabic



Visual Analysis

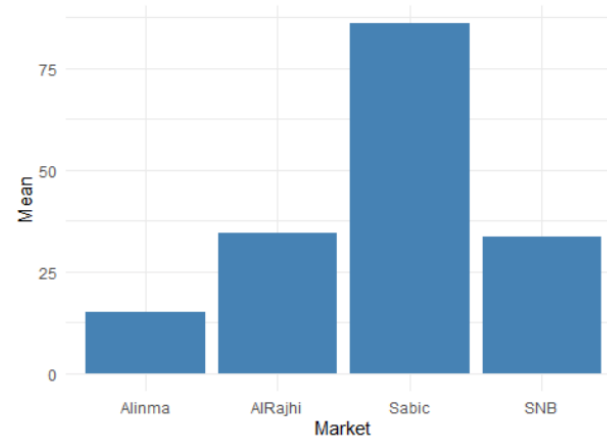
Visualisation 1:

Boxplot of Each Market

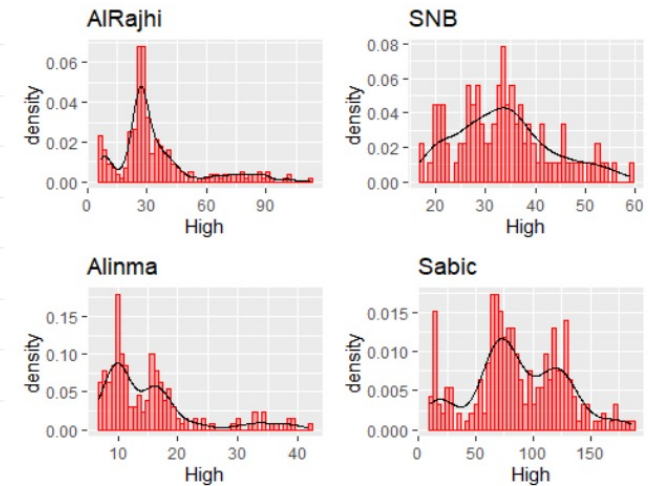


Visualisation 2:

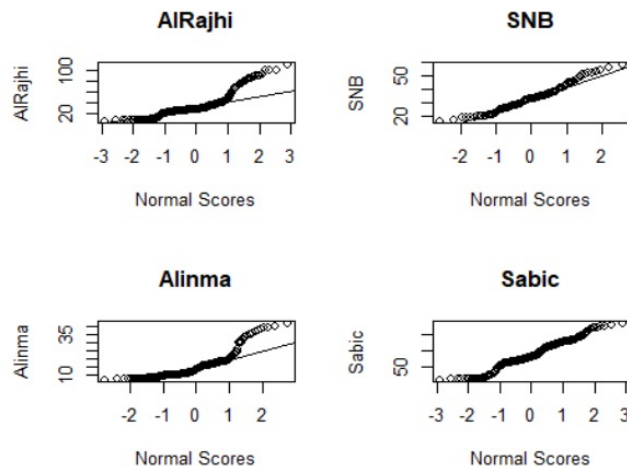
Mean Values of Four Markets



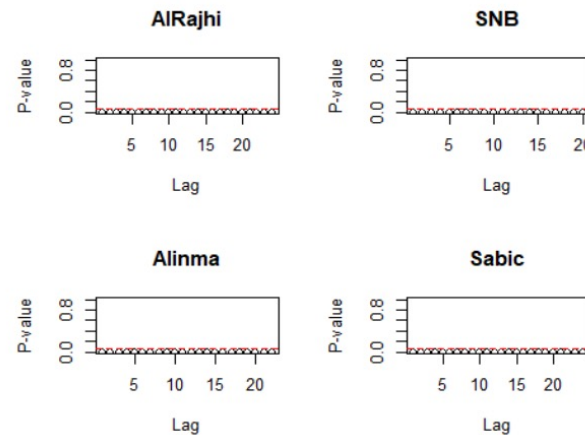
Visualisation 3:



Visualisation 4:

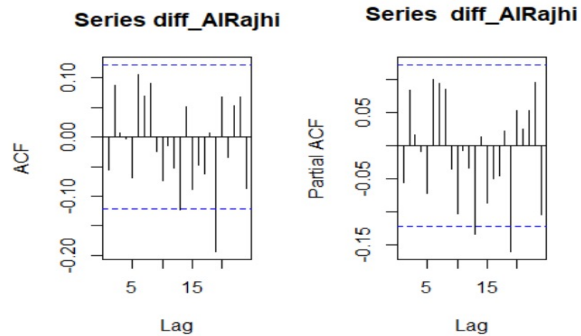


Visualisation 5:



Model Specification

Model Decision 1

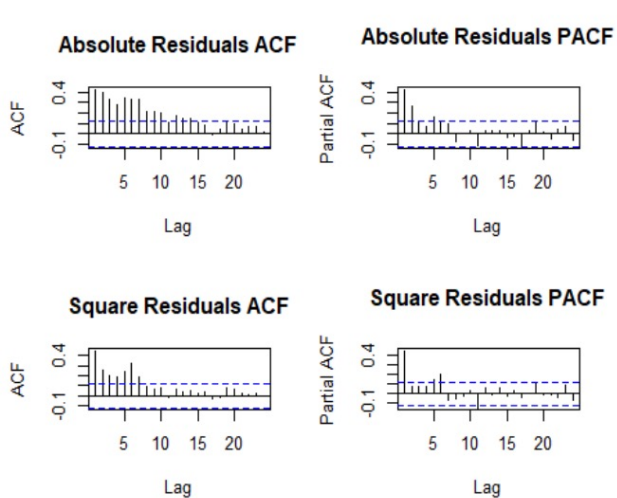


Model Decision 2

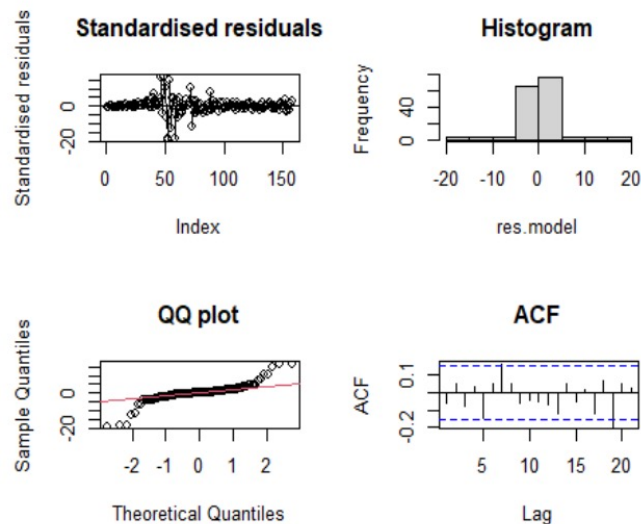
```
updated_AIRajhi = arima(diff_AIRajhi, order = c(2, 0, 2), method='ML')
coeftest(updated_AIRajhi)

##
## z test of coefficients:
##
##      Estimate Std. Error  z value Pr(>|z|)
## ar1      0.436721   0.048766   8.9555 <2e-16 ***
## ar2     -0.875150   0.053193  -16.4522 <2e-16 ***
## ma1     -0.474111   0.024651  -19.2331 <2e-16 ***
## ma2      0.979051   0.034042   28.7605 <2e-16 ***
## intercept 0.258216   0.276566   0.9336  0.3505
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

Model Decision 3

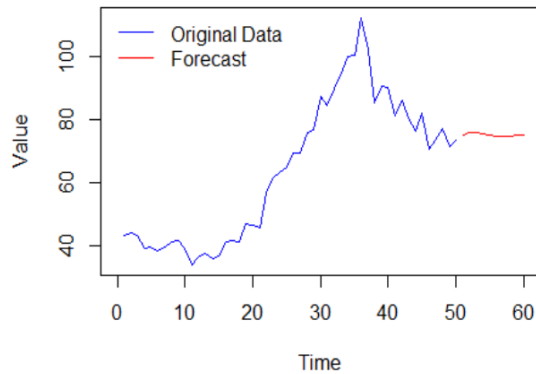


Model Decision 4

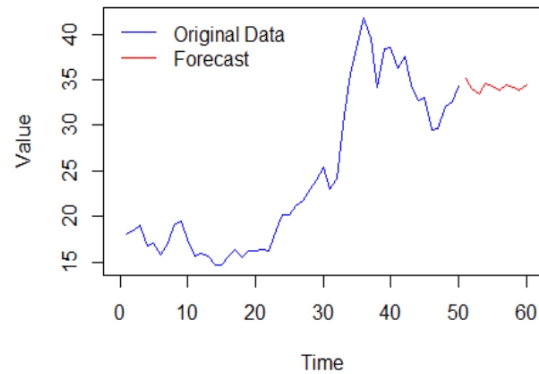


Conclusion

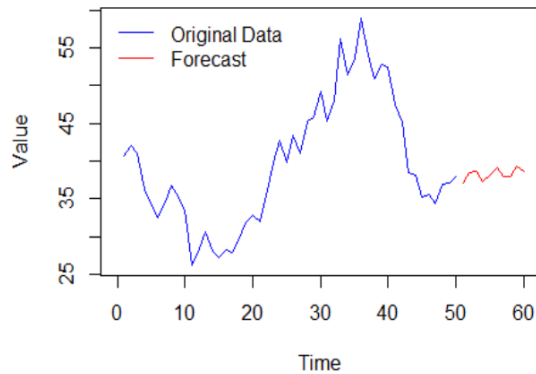
AlRajhi Time Series and Forecasts



Alinma Time Series and Forecasts



SNB Time Series and Forecasts



Sabic Time Series and Forecasts

