

# Global Mart Case Study

Group Name: meraki

1. Ravi Prakash
2. Snehalakshmi Balasubramanian
3. Srikant Balaji
4. Preksha Tripathi

# Abstract

- “Global Mart” is an online store super giant having worldwide operations. It takes orders and delivers across the globe and deals with all the major product categories - consumer, corporate & home office.
- AIM:
- Find out the most profitable top 2 market segments for the company
- And do a Sales forecast.
- Methodology:
- Data Understanding
- Bucketing data to segments
- Forecasting sales and profitable top 2 market segments

# Problem solving methodology

Understand the data

- View the Global Mart Data

Data Cleaning

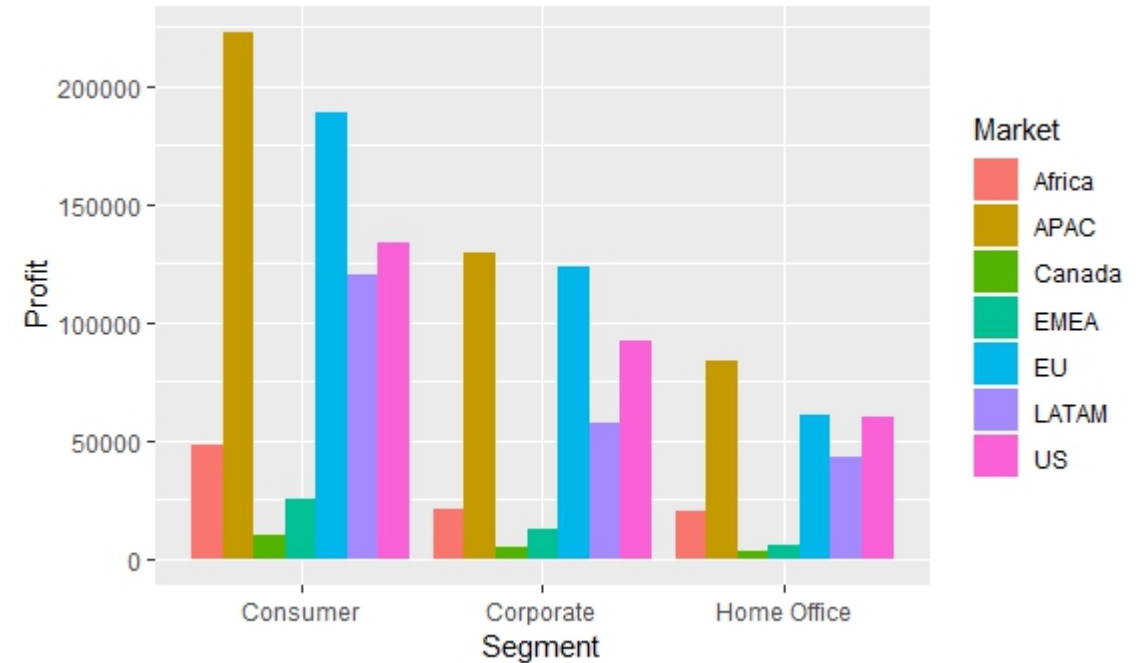
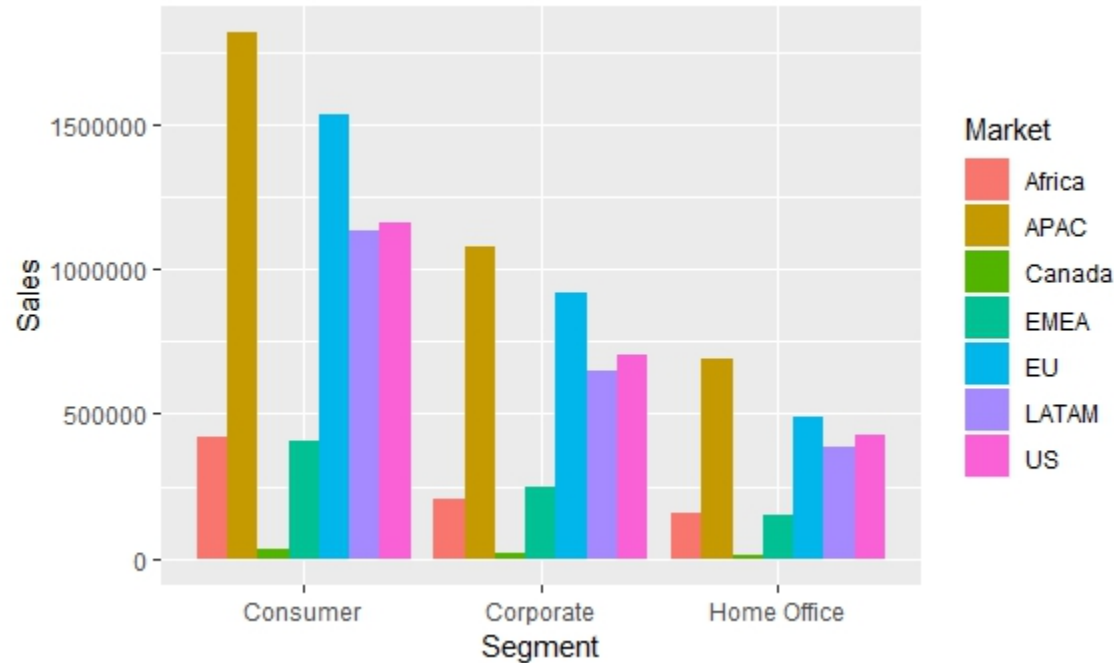
- Remove duplicates and NA values

Data Preparation

- Preparing buckets of data

Model Building

Model Evaluation and Forecasting

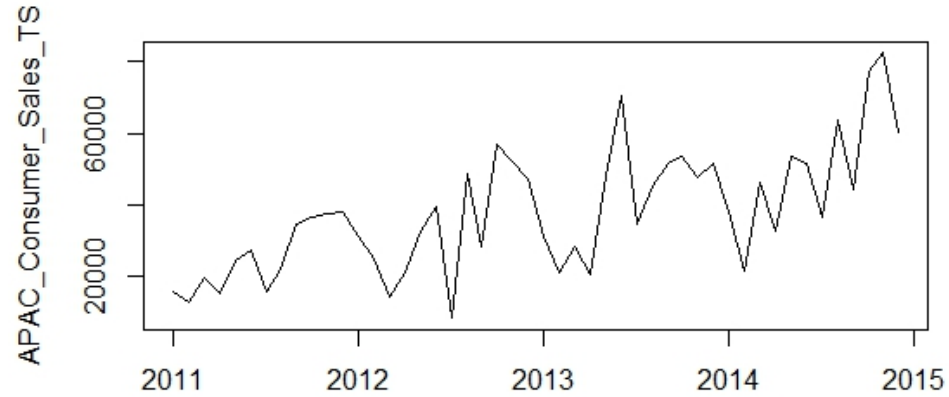


It is evident that APAC-Consumer & EU-Consumer market segments have clocked maximum sales and profit over the given period.

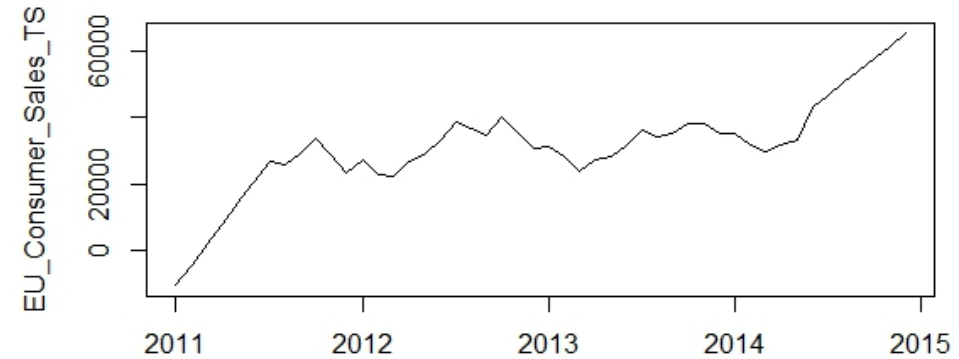
Coefficient of variation of profits concurs the same and these are the two segments selected for forecasting sales and quantities.

# Sales & Quantity of Target Market Segments

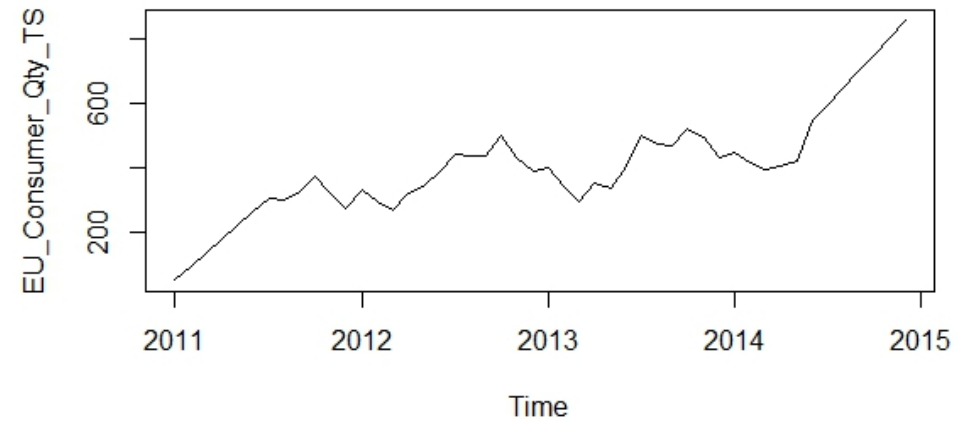
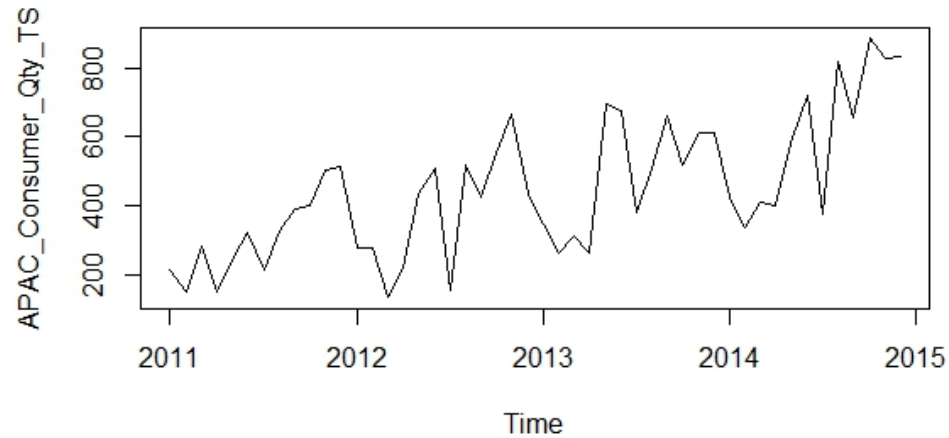
APAC Consumers



EU Consumers



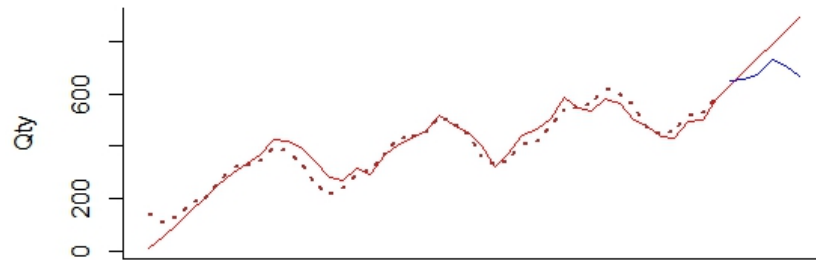
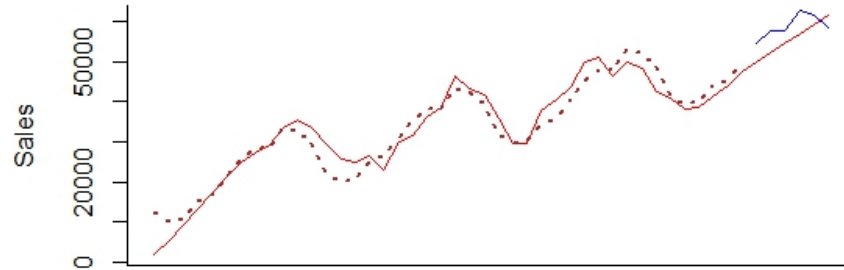
Sales



Quantity

It is clear from plots that demand and sales have trend are seasonality present.

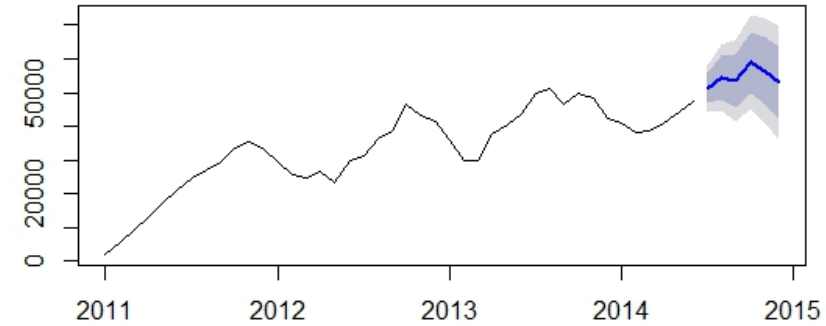
Classical Method



Time

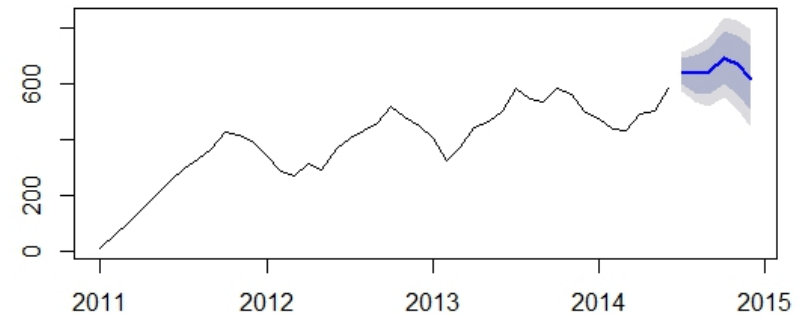
Auto Arima

Forecasts from  $ARIMA(0,1,0)(1,1,0)[12]$



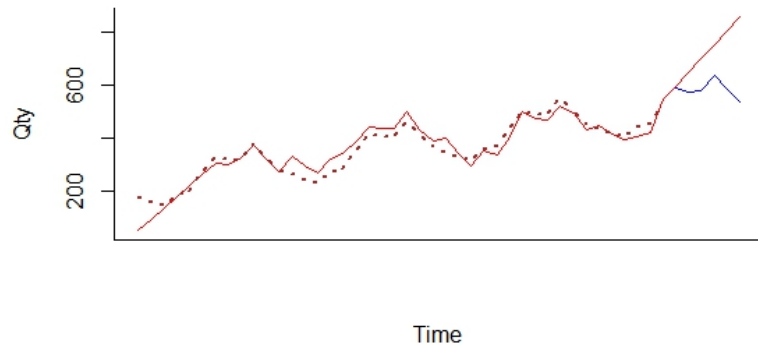
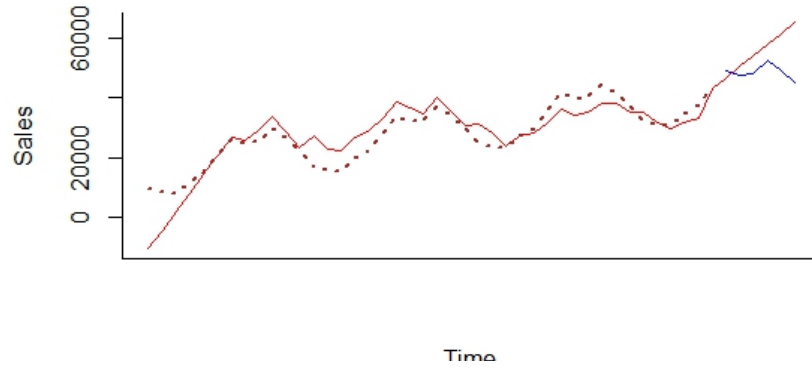
Sales

Forecasts from  $ARIMA(0,1,0)(1,1,0)[12]$



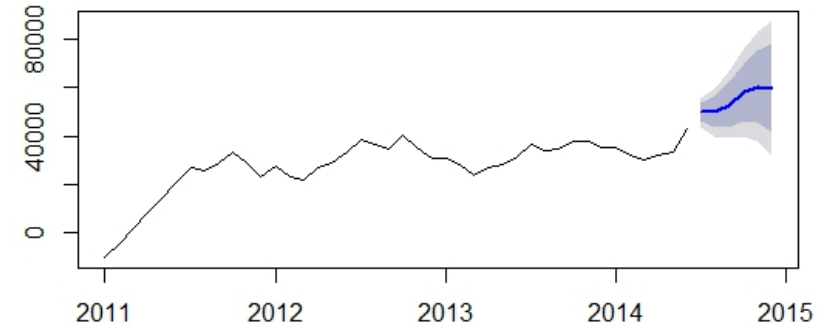
Quantity

Classical Method



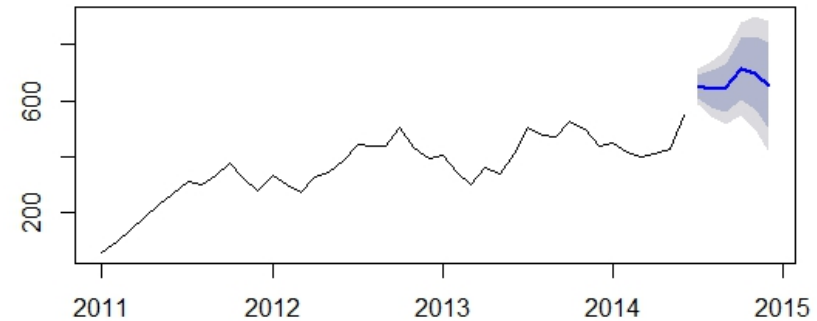
Auto Arima

Forecasts from ARIMA(0,2,1)(0,1,0)[12]



Sales

Forecasts from ARIMA(0,2,1)(0,1,0)[12]

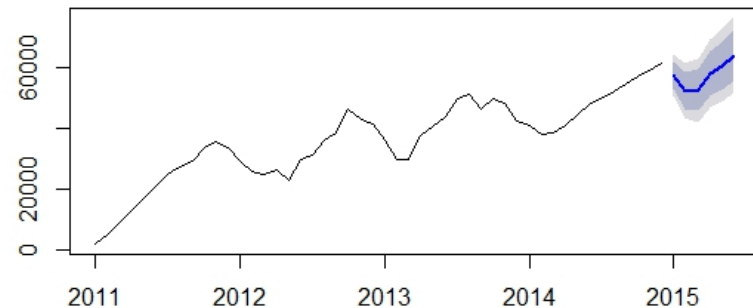


Quantity

# Forecast for next six months

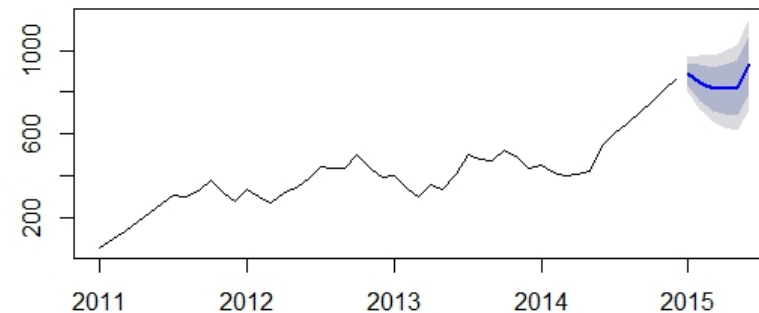
## APAC forecasts

Forecasts from  $ARIMA(1,0,0)(1,1,0)[12]$  with drift



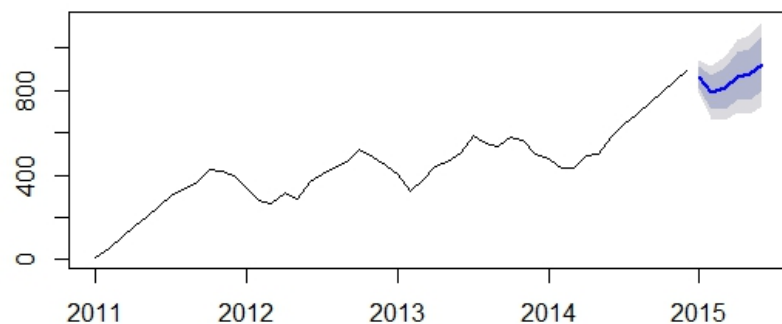
## EU forecasts

Forecasts from  $ARIMA(1,0,1)(0,1,0)[12]$  with drift

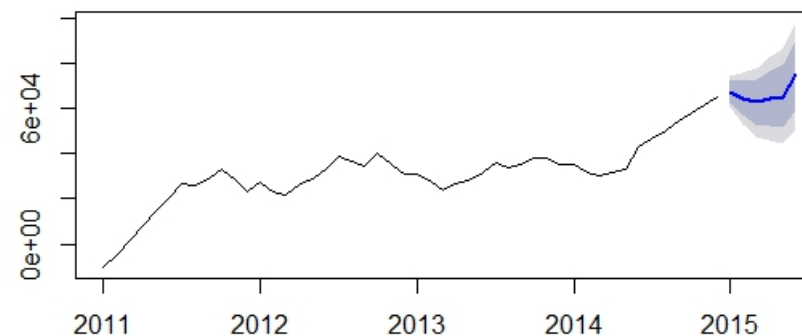


Sales

Forecasts from  $ARIMA(1,0,1)(1,1,0)[12]$  with drift



Forecasts from  $ARIMA(2,0,0)(0,1,0)[12]$



Quantity



## Conclusions

- APAC and EU are the most profitable Market Segments
- We created total 4 forecasting models for top 2 segments for months January 2015 to June 2015.
- APAC Sales is likely to rise in next 6 months with small fluctuations.
- EU Sales may show slow rise in coming months.

THANK YOU