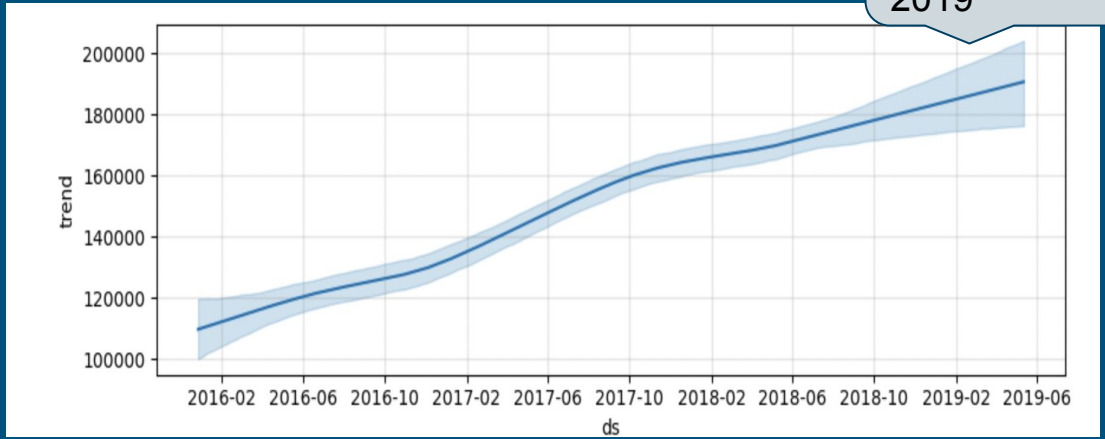
General dynamic

Trend Analysis:

- Sales values of primary retailers Argo and Tesco were considered.
- Combined target: Company revenue, a key performance indicator.
- Steady growth in sales observed throughout the analyzed period.
- Positive prediction for upcoming year based on persisting trend.

Revenue trend Prediction for 2019



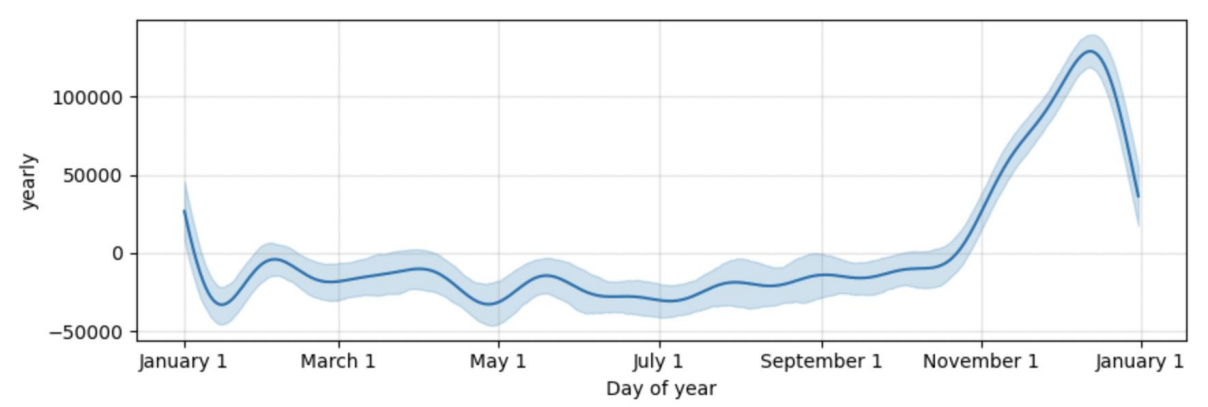
Key Takeaways:

- Revenue analysis focused on overall growth.
- Leverage existing sales growth trend.
- Develop targeted initiatives for maximizing revenue potential.

Seasonality

Seasonality Analysis:

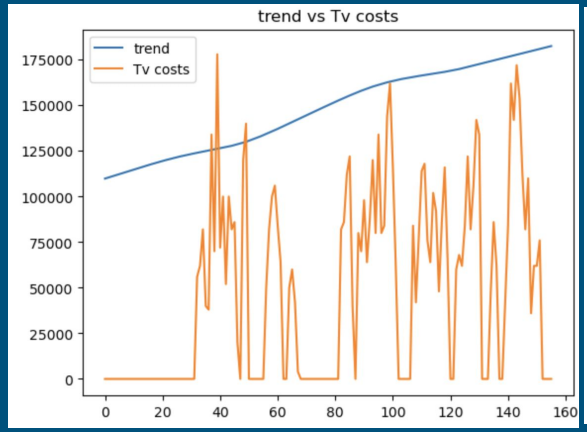
- ❏ Stable seasonality observed over the course of three years.
- ❏ Peaks in November-December indicate sales growth during the Christmas season.
- ❏ High potential for leveraging the holiday season to drive sales.
- ❏ Importance of establishing brand recognition prior to the peak season.

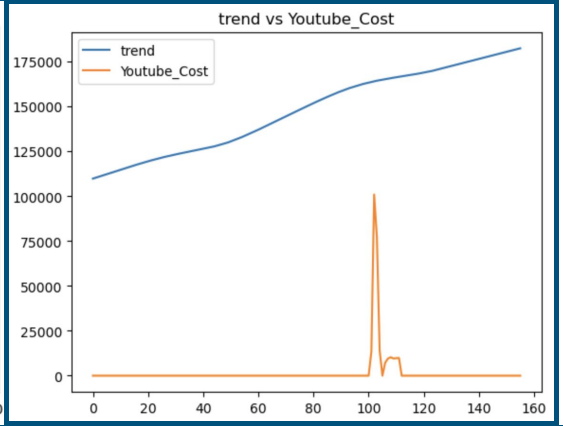


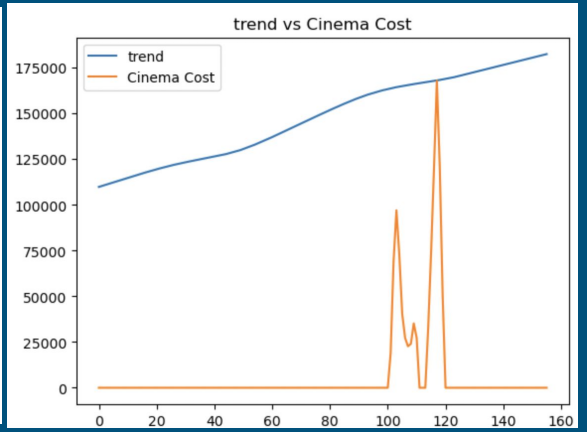
Key Takeaways:

- ❏ Capitalize on the Christmas season for increased sales.
- ❏ Develop marketing strategies to maximize brand visibility.
- ❏ Prepare in advance to capture consumer attention during the high season.

Marketing activities & trend analysis







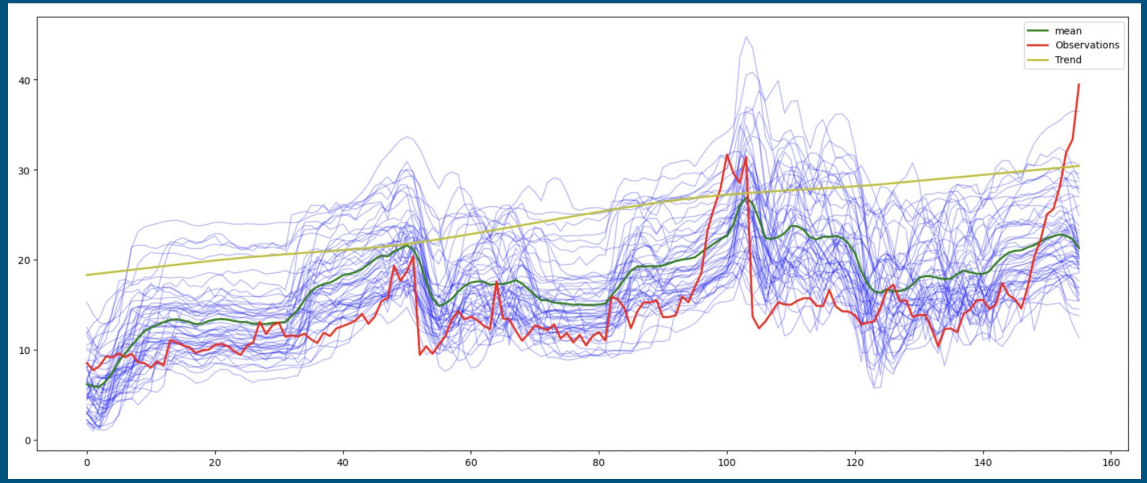
Marketing Activities and Trend Analysis:

- Examining the impact of marketing activities on trend changes.
- Translation of all marketing activities into costs for comparison with revenue.
- TV advertising shows promising results, indicating a slight peak in the trend dynamics.

Econometric modelling Bayesian approach

Method:

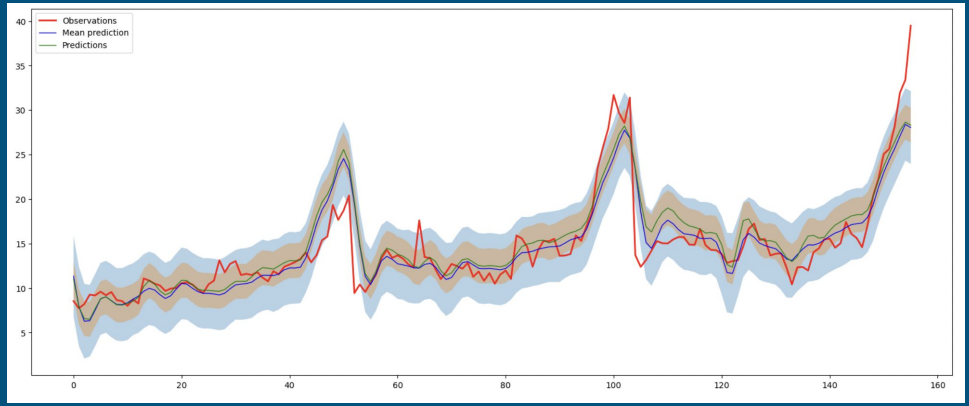
- Employed Econometrics modeling to study the impact of marketing activities on sales
- Utilized Bayesian framework PYMC incorporating adstock and saturation effects
- y - Revenue(Sales Value) x - distribution, seasonality, trend, marketing activities
- Considered prior beliefs of x to shape the model's predictions
- Illustrated how prior beliefs influence the model's fit and prediction

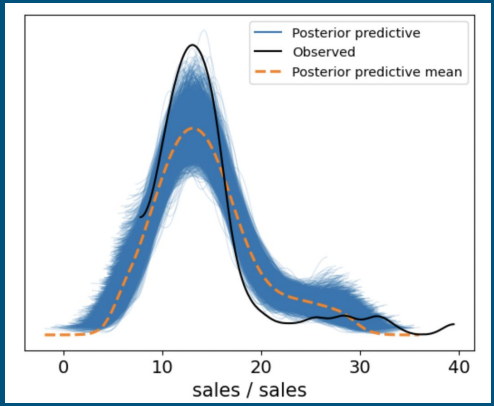


Key Takeaways:

- Initial prediction attempt, subject to further refinement
- Additional efforts and exploration of prior beliefs would provide better fit

Econometric modelling Bayesian approach

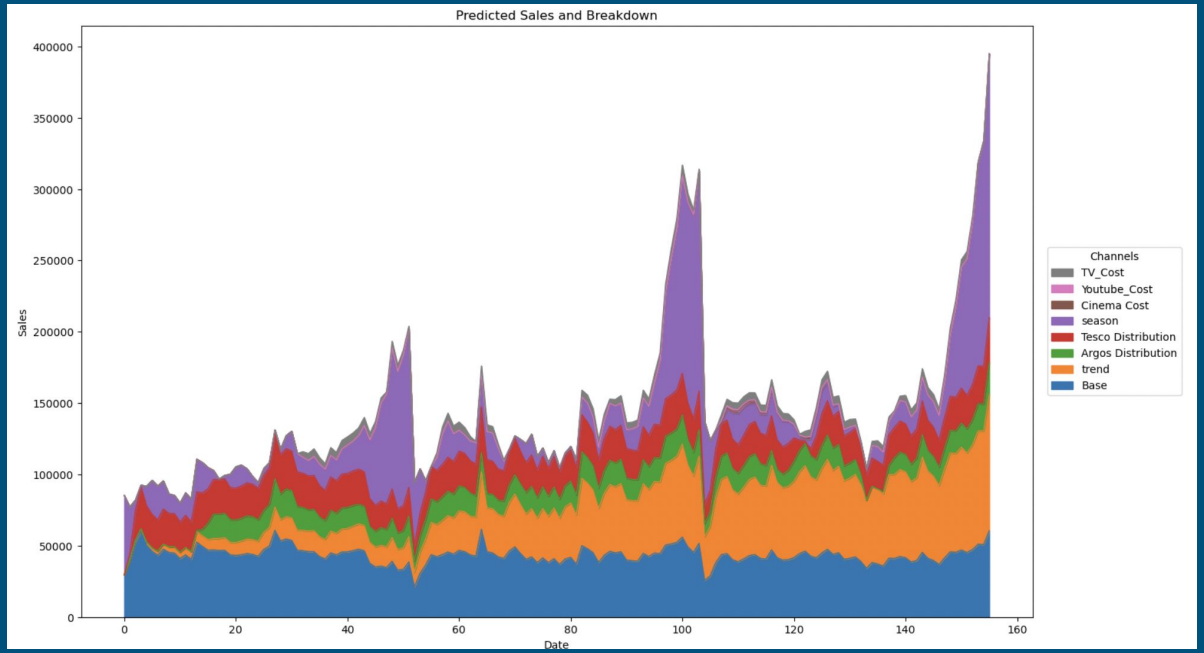




Model fit:

- Evaluation of the model's performance in predicting sales after fitting with actual data
- There is an alignment between the actual data and the mean prediction in certain areas
- There are areas where the model could be improved for better fit
- Overall assessment of the model's performance as satisfactory for a first attempt

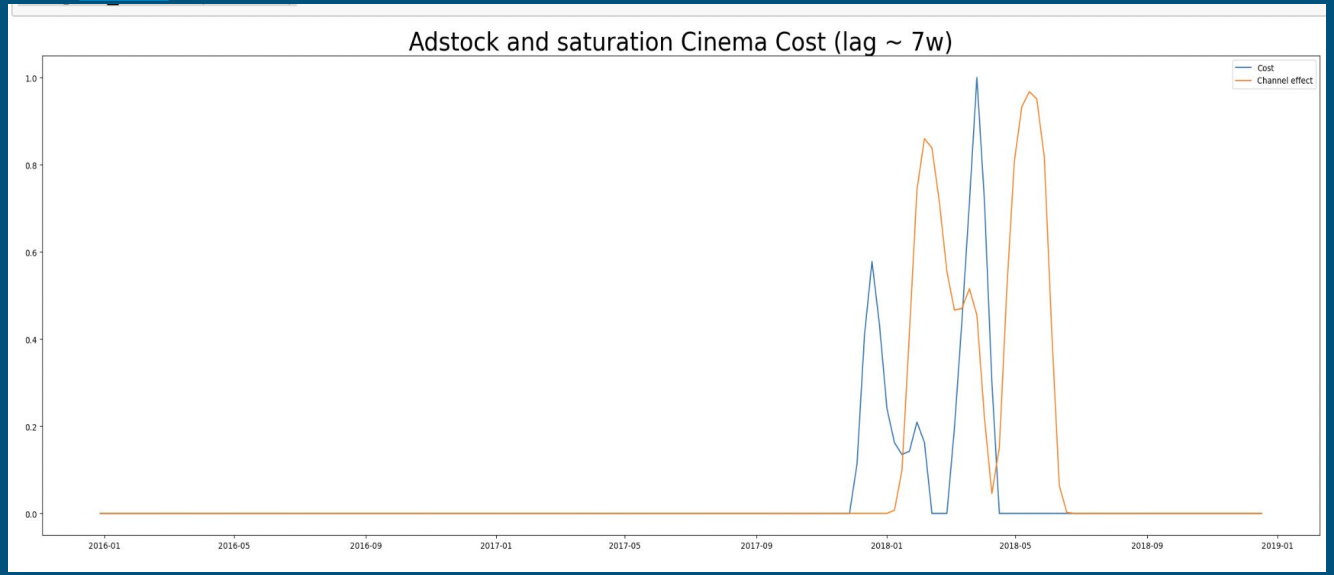
Econometric modelling Bayesian approach



Results:

- The components contributing to sales: basis, trend, seasonality, distribution, and marketing activities
- Marketing activities contribute relatively less compared to other components
- We'll delve deeper into the analysis of marketing activities to gain more insights and understanding

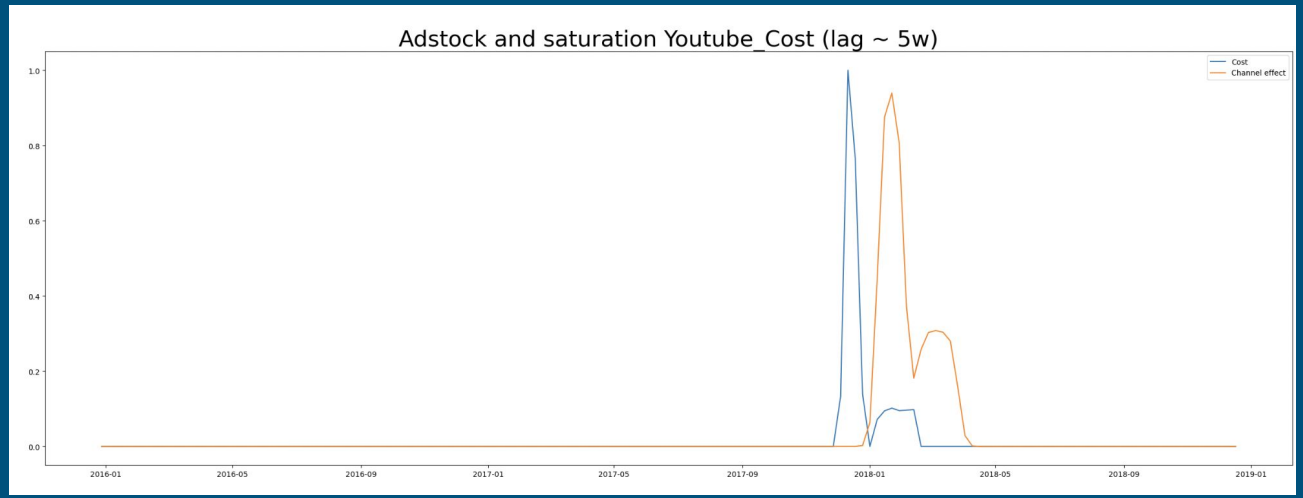
Econometric modelling Bayesian approach



Results:

- There is a lag of 7 weeks between cinema spend and sales derived from it

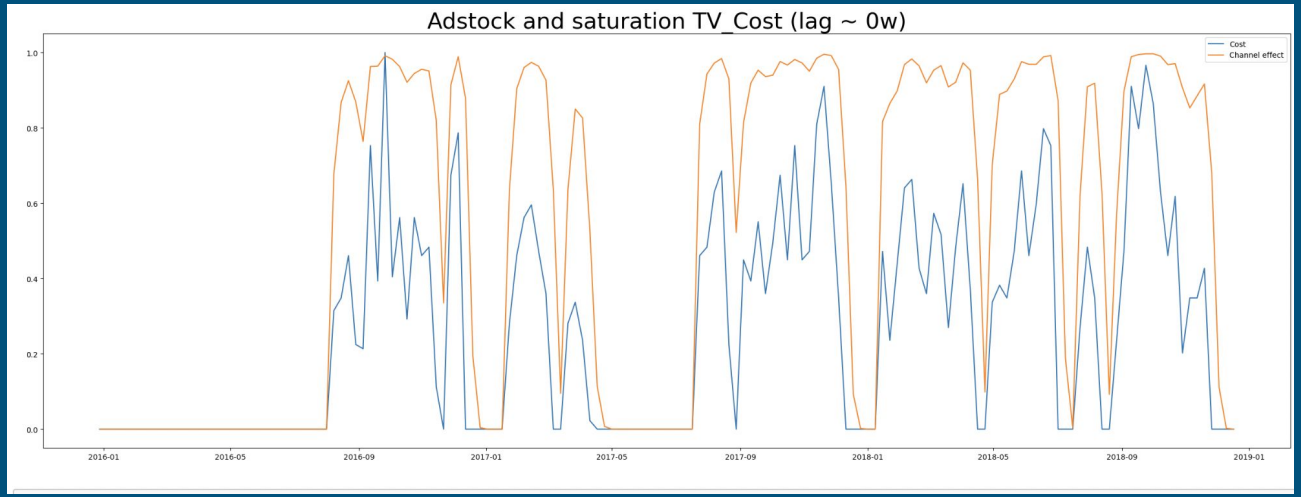
Econometric modelling Bayesian approach



Results:

- There is a delay of 5 weeks between the Youtube impressions and the effect on Sales

Econometric modelling Bayesian approach



Results:

- There is no detected delay in TV ads and effect

Summary

- Noted that TV advertising performed well initially, but there was a cut in TV advertising during the season itself.
- Film advertising was turned on late and had intermittent presence during the season. YouTube advertising was also slightly delayed for the season.
- Suggestion is to optimize the timing of marketing activities by starting them in September to account for delay and adstock effects, and maintaining a consistent presence until the end of the season..
- The ROAS for each channel is above 200%, indicating positive returns on investment.
- Need to consider competitors TV ratings. It may have huge effect on company's sales
- Add TOM(top of mind) ratings to analysis to monitor brand recognition