1 Introduction

Start of Introduction

1. Our problem: "Predicting the pricing of salmon using similar commodities and macroeconomic factors"

Why is our problem important and what is its relevance?

The salmon industry is one of the biggest industries in Norway. (Johansen et al. 2019) The companies in the industry impact the rest of the Norwegian economy and society as a whole through labor and culture. Predicting the price of salmon would help to predict the future of these companies short term and their impact. It is relevant in Business analytics as we will be creating a model using methods and logic form the course and its highly relevant in the economy today as it has been quite a turbulent market given the recent discussion about tax increase for the industry especially.

2 Theory and literature

Relevant theory will be: We envision using economic theories such as market equilibrium, Pareto efficiency and consumer choice theory. Statistical theory, such as the presumptions for regression to evaluate whether our data sources meet the requirements, and our model is robust. Neural networks, especially LSTM compared to other predictive models

3 Methodology

We intend to utilize the following methods:
- Tensor flow
- ARIMA, https://www.machinelearningplus.com/time-series/arima-model-time-series-forecasting-python/
One condition for ARIMA is that the data is stationary. (Hyndman and Athanasopoulos 2021, p. 291) - Exploratory analysis
- Regression, https://www.alchemer.com/resources/blog/regression-analysis/
- LSTM
- Neural networks

4 Results and discussion

5 Conclusion

Works Cited

Hyndman, Rob J and George Athanasopoulos (2021). *Forecasting: principles and practice*. Melbourne: Otexts. ISBN: 9780987507136.

Johansen, Ulf et al. (2019). 'The Norwegian seafood industry – Importance for the national economy'. In: *Marine Policy* 110, p. 103561. ISSN: 0308-597X. DOI: https://doi.org/10.1016/j.marpol.2019.103561. URL: https://www.sciencedirect.com/science/article/pii/S0308597X1830914X.