Adding Complexity in Call Centers Forecasting Methods

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Abstract

My abstract

1 Personal details

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The wiki on my github account `https://github.com/giuseppek/Master-Thesis`

2 Research question

The goal of this research is to determine whether a combination of ARIMA models with Artificial Neural Network algorithms can outperform more popular and less sophisticated forecasting methods in the task of predicting daily calls arrivals in call centers. The research is divided into four sub-questions:
- What is the forecasting performance of common used forecasting methods like Exponential Smoothing and the new open source Prophet algorithm recently introduced by Facebook?
- Can the forecasting performance of previous methods be improved using ARIMA and Neural Networks?
- What are the advantages and disadvantages of all considered models?
In case of better performance of ARIMA+ ANN:
- To what extent can the latter model be automated and exploitable by non professional users?

3 Related Literature

4 Methodology

5 Risk assessment

6 Project plan