The bank has recently expanded its operations to a new country. The ATM operations manager is interested in predicting the demand for the ATMs one week ahead to ensure adequate resources and a positive user experience.

Task:

1. Use the data provided to build a model that predicts the cash-out demand for the ATMs in the new country.
2. Analyze the model results and provide insights gained during the modeling process.
3. Present the results of the model in a clear and concise manner, suitable for a non-technical audience. This should include an explanation of the approach taken, the results obtained, and any limitations or suggestions for improvement.
4. Provide recommendations for the bank to optimize its ATM operation in the new country by using the model you built. Assume any relevant data to be readily available.

Data:

The data contains the cumulative cash out along with the remaining amount for each of the four ATMs for the past two years. The data is provided in a excel file (***ATM\_data.xlsx***), with the following columns:

**BN\_20**: remaining amount in bill notes of 20 euros  
**BN\_50**: remaining amount in bill notes of 50 euros  
**Cash Out**: displays the cumulative total of the amount withdrawn  
**Remaining Amount**: amount available for cash-out.  
**Status:** ATM service status (up/down).  
**datetime:** date and time values were recorded.