

Conclusions: The sales data analysis allows us to draw several key insights, such as:

- The lowest average revenue was recorded in 2022; since then, there has been an upward trend.
- The three best-selling products are backpacks, USB cables, and wall clocks.
- The top-selling category is furniture.
- The most common payment method is bank transfer.
- The highest number of returns comes from orders placed in Australia.
- The average order value for transactions paid by bank transfer varies by country. For example:
 - The highest average order value is in Sweden (1318.53), suggesting that customers in Sweden tend to spend more per order.
 - The lowest average order value is in the Netherlands (1197.71), indicating lower spending per order in this country.

Model evaluation:

1. Mean Squared Error (MSE) = 0.0147:
 - MSE measures the average squared difference between predicted and actual values. The closer to zero, the better the model's fit. A value of 0.0147 indicates that the model predicts values with relatively low squared error.
2. Mean Absolute Error (MAE) = 0.0991:
 - MAE represents the average difference between predictions and actual values, expressed in the same unit as the original data. In this case, the MAE of 0.0991 means that predictions differ from actual values by an average of 0.0991 units, which is quite precise, suggesting that the model captures the data trend well.
3. R-squared (R^2) = 0.689:
 - The R^2 score measures how well the model explains the variability in the data. An R^2 of 0.689 indicates that the model explains approximately 68.9% of the data variance. This is a decent result, suggesting the model captures the data's overall variability well, though it's not yet perfect.

Overall interpretation: The LSTM model predicts values well and captures the primary trend in the data. However, some inaccuracy remains, meaning the model could benefit from further tuning to better capture more subtle patterns.