**Technical Report: Sales Data Analysis Using Excel**

**1. Introduction** The aim of this project was to examine sales data to uncover key performance trends across different regions, explore possible relationships between variables, and suggest practical improvements. Microsoft Excel was used to process, analyse, and present the data due to its reliable functions, formulae, and pivot table features.

**2. Methodology** The analysis followed these steps:

* **Preparing the Data**: The dataset was cleaned to ensure accuracy and consistency. Unnecessary columns were removed, and missing information was addressed.
* **Calculating Metrics**: Important metrics such as total sales by region, average sales, and correlations were calculated using Excel functions like SUM, AVERAGE, and CORREL.
* **Creating Pivot Tables**: Pivot tables summarised regional sales performance and ranked regions accordingly.
* **Analysing Correlation**: The CORREL function was applied to explore the relationship between total leave hours and bonuses, resulting in a coefficient

**3. Results**

* **Regional Performance**: The Southwest region led in sales, followed by the Northwest and Central regions. This suggests stronger customer demand or effective strategies in the Southwest.
* **Correlation Analysis**: A weak to moderate positive correlation (0.38) was found between total leave hours and bonuses, hinting at some connection but with limited influence.
* **Sales Trends**: Visual charts revealed notable disparities among regions, with opportunities for growth in the Northwest and Central areas.

**4. Discussion** The results emphasise the importance of focusing resources on top-performing regions while developing strategies to enhance sales in regions with lower performance. The weak correlation between leave hours and bonuses suggests other factors significantly impact bonus allocations and should be examined further.

**5. Conclusion and Recommendations** This analysis highlights how Excel can be effectively used to process and interpret data. The findings suggest several actions:

* Apply successful strategies from the Southwest region to other areas.
* Target marketing and sales efforts in the Northwest and Central regions to boost performance.
* Investigate other factors influencing bonuses to ensure fairness and efficiency.

**6. Tools Used**

* Microsoft Excel
* Functions: SUM, AVERAGE, CORREL, LOOKUP
* Pivot Tables and Charts

This report demonstrates how straightforward tools like Excel can deliver meaningful insights and support informed decision-making