

# Performance Analysis for Global Electronics

## Project Description

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- Sales data for a fictitious Global electronics retailer, including tables containing information about transactions, products, customers, stores.
- The original dataset includes 62,883 Row and 40 Columns.
- 12,000 unique customers.
- Data covers 62 months (January 2016 – February 2021).

## Data Source:

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### Global Electronics Retailers

## Data Transformation Steps

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Data transformation and analysis were performed using Excel Power Query i, followed by visualization and reporting using PowerBI with the following steps:

### **1. Data transformation and analysis**

- Use Excel Power Query tool for data cleaning
- Check types of data for columns.
- Check data for Null Vales. **only one columns contained Null values**(Delivery date for in-store sales) – **has no impact on data.**
- Deleted unnecessary columns (Line Item, Customer name, Product name, product color, store open date).

- Inserted new columns (Avg. Delivery Duration, Total Sales, Total Cost, Total Profit, Sales channel).

## 2. visualization and reporting

- Used PowerBi for further data analysis and dashboard design.
- Inserted new conditional columns
  - Sales Channel (Online, In-store).
- Created Dashboards contains:
  - Overview
  - Time Analysis.
  - Sales Distribution Analysis.

## Conclusion

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The Performance analysis project using PowerBI and DAX measures aims to provide valuable insights to Analyze sales Trends across different store location and channels, hence provide clear decision-making and strategic planning for Global Electronic Company. The interactive and visual nature of the report facilitates a deeper understanding of the data, enabling Management to make informed decisions.

## Crucial Insight:

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### Online Vs. In-store Sales

1. 21% of Sales are Made online with total value of \$11.4M.
2. 79% of Sales are Made in-store with total \$44.3M.

3. Average Delivery duration for online orders is 5 Days ( highest was 7 days in 2016 and started to decrease till 4 days average delivery).

### Sales By Country

1. USA is the largest market with 53.5% of sales.
2. France is the smallest market with only 2.7% followed by Netherlands 3.5%.

### Profit Ration

1. Average profit Ration 59%
  - a. All countries have the same profit ratio of 59%.
  - b. Product Category with highest profit Ratio is Music, Movies and Audio Books with 61%.
  - c. Product Category with Lowest profit Ratio is Games and Toys with 55%.
2. Although France and Netherlands are the lowest in sales value but they have the same profit ratio as the other countries

### Sales By Product Category

1. Computers are the most sold product with 34% of the Total Sales.
2. Games and Toys with the lowest product category with only 1.3% of the Total Sales.
3. Computers are the most sold Units with 22.3 % of the Total Quantity sold.
4. TV and Videos are the lowest Quantity sold with only 5.68% of the total Quantity Sold (NOT the lowest Sales Value).

Recommendations for Management:

1. Reconsider marketing strategy applied in France and Netherlands to increase their sales both online or in-store sales.
2. France has 7 stores same as UK while Uk sales are 4.6x more than France.
3. Reconsider drop the lowest selling category (Audio- Music movies and audio books- Games and toys) which only counts for 10% of total sales or increase marketing plans.
4. Consider introduce new products, service centers.

Further Analysis Recommendations:

1. Investigate the relationship between gender, Age, and sales.
2. Investigate the relationship between stores opening date and their sales.