Data Analytics Project Report

# Project Overview:

This project focuses on analyzing the company’s sales performance across product categories, countries, and sales channels. The aim is to assess logistics efficiency, identify trends, and provide actionable business recommendations to optimize revenue, profit, and customer satisfaction.

# Key Insights from Visualizations

- Delivery Time: Average ~25 days; fastest for Personal Care/Clothes, slowest for Cereal/Office Supplies; Europe slightly faster than Asia.

- Profit vs. Delivery Time: No strong correlation; high-margin categories drive profitability more than shipping speed.

- Sales Dynamics: Clear seasonality with recurring monthly peaks; Office Supplies, Household, and Cosmetics lead revenue.

- Regional Performance: Europe dominates sales; Asia underperforms, suggesting potential for expansion.

- Weekly Patterns: Highest revenue on Monday, Thursday, and Sunday; Office Supplies and Household consistently strong.

# Introduction

The goal of the project is to analyze the company's sales by categories, countries, and sales channels, assess logistics efficiency, and identify key trends for business decision-making.

# Key Metrics

Total Orders: 1,330  
Total Revenue: 1,699,681,880.00  
Total Profit: 503,111,056.00  
Number of Countries: 45

# Sales by Categories

Office Supplies: Revenue 402,084,291 | Profit 78,440,407  
Household: Revenue 294,086,332 | Profit 73,081,334  
Cosmetics: Revenue 233,048,167 | Profit 92,792,634  
Meat: Revenue 223,498,375 | Profit 30,259,875  
Baby Food: Revenue 143,490,030 | Profit 54,019,776  
Conclusions:  
- Highest revenue: Office Supplies; Lowest: Fruits  
- Cosmetics generate high profit despite lower revenue, indicating a high margin.  
- Focus marketing and inventory on categories with high revenue and profit.

# Sales by Countries (Top 10)

Czech Republic: Revenue 53,477,679 | Profit 13,651,132  
Ukraine: Revenue 53,176,002 | Profit 14,828,233  
Bosnia and Herzegovina: Revenue 50,060,911 | Profit 13,306,390  
Macedonia: Revenue 49,140,567 | Profit 13,743,411  
San Marino: Revenue 47,805,662 | Profit 13,848,724  
Conclusions:  
- Czech Republic and Ukraine are key markets by revenue.  
- Consider regional marketing strategies and logistics optimization.

# Sales by Channels

Offline: Revenue 870,642,749 | Profit 254,355,080  
Online: Revenue 829,039,131 | Profit 248,755,976  
Conclusions:  
- Offline revenue slightly exceeds online, but profits are close.  
- Optimize costs in each channel to increase margin.

# Delivery Time

Average Delivery Time: 24.78 days  
By Categories: Fastest: Personal Care (~21 days), Slowest: Cereal (~27 days)  
By Countries (Top 10): Fastest: Croatia, United Kingdom (~18-19 days), Slowest: Liechtenstein, Greece (~22 days)  
By Regions: Europe: ~25 days, Asia: ~26 days  
Conclusions:  
- Longest delivery categories may need logistics optimization.  
- Delivery time has minimal impact on profit but reducing it can improve customer experience.

# Sales Dynamics

Monthly sales show clear seasonality and peaks, likely due to promotions or holidays.  
Conclusions:  
- Plan inventory and marketing campaigns around seasonal trends.  
- Identify stable vs. seasonal products per category.

# Business Recommendations

- Focus on profitable categories: Office Supplies, Cosmetics, Household.  
- Reduce delivery time for slower categories.  
- Regional strategy: target Czech Republic, Ukraine, and other top markets.  
- Maintain balance between online and offline channels.  
- Prepare stock and promotions for peak sales periods.