

Project Title: Sales & HR Performance Dashboard – WaveX Watercraft

Business Problem / Project Objective:

This project involved analyzing and visualizing 2022 sales and HR data for WaveX Watercraft, a jet ski manufacturing company. The goal was to extract actionable insights for leadership by creating two interactive dashboards one for **Sales Performance** and one for **Human Resources** using Power BI. Specific objectives included:

- Excluding outdated data (e.g., from 2018 and discontinued products like WR3)
- Forecasting future sales
- Analyzing distributor performance, payment methods, and employee metrics

Key Questions Explored

- Which product category and regions drive the most profit?
- How do different payment methods impact revenue?
- Which distributors are underperforming despite high volume?
- What's the experience level and promotion readiness of employees?

Tools & Techniques Used

- **Power BI Desktop**
- **Power Query Editor** for data cleaning and transformation
- **DAX** (Data Analysis Expressions) for calculated columns and measures
- **Data Sources:** Excel, Text, and PDF formats

ETL & Data Modeling Process

- Merged and cleaned datasets (Sales, HR, Distributor Lists)
- Removed duplicates, nulls, and irrelevant data (e.g., 2018 and discontinued product WR3)
- Created calculated columns: Profit, ProfitPerUnit, YearsInService
- Built a star schema by establishing relationships among fact and dimension tables
- Created custom DAX measures for Total Sales, YoY Growth, and employee KPIs

Dashboard Highlights

Sales Dashboard

- KPI Cards: Total Sales, Profit, Avg. Profit/Unit
- Line chart: Sales trend + 2-year forecast
- Donut chart: Sales by Payment Method
- Bar/Column charts: Top distributors & sales by category
- Map visual: Sales by country

HR Dashboard

- Pie chart: Gender distribution
- Area chart: Average age by department
- Matrix: Job satisfaction vs years of service
- Gauge: Avg. job satisfaction
- Funnel: Promotion readiness
- Cards: % of employees living far vs close to office

Insights & Recommendations

- **Distributors:** Focus on the top 5 performers, optimize pricing for others
- **Products:** Discontinued WR3 was correctly filtered — data confirms poor performance
- **HR:** Majority of promotion-due employees live farther from office — consider remote/flex incentives
- **Sales Strategy:** Cap discounts to avoid profit erosion, and invest more in profitable categories

Key Insights & Recommendations:

- Product WR3 was underperforming and discontinued, filtering it improved clarity of performance metrics
- North America recorded the highest sales and profit, followed by Australia, Europe, and Asia. This highlights North America as a key market with strong returns and growth potential
- Certain distributors had high sales but lower profitability, renegotiation may be needed
- 13 out of 150 staff (9%) are eligible for promotion, signaling a key opportunity to boost morale and retention.
- Forecast indicates steady **2-year growth** if product mix and payment methods are optimized
- Sales consistently peak in Q1 and Q4, signaling the need for strategic stock planning and marketing efforts during these high-demand periods.
- Analysis shows 13 out of 150 employees are due for promotion. It's important to establish clear promotion pathways to motivate staff and improve retention.
- Job satisfaction averages 3.99 out of 5, reflecting generally positive morale. Maintaining engagement initiatives and addressing employee feedback will help sustain and increase satisfaction.

Impact (Projected)

- 8–12% increase in profit margin from optimized product focus
- Data-driven HR decisions around employee retention and promotion cycles
- **Sales forecasting** enabled the leadership to plan ahead with confidence
- Visualization accessibility for non-technical stakeholders using slicers and interactive charts