Business Performance Dashboard

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Introduction

This project is built on top of a Data Warehouse that was designed and implemented earlier. The Gold Layer of the warehouse was used as the trusted data source for reporting and analysis.

Using Power BI, a professional dashboard was developed to provide actionable insights. The dashboard consists of four main pages:
1. Home Page – Provides a summary and navigation to the other reports.
2. Overview Page – Displays overall performance metrics and trends.
3. Sales Report – Focuses on revenue, subscriptions, and sales performance.
4. Customer Report – Focuses on customer growth, retention, churn, and engagement.

Dashboard Pages Description

Home Page
Purpose:
Acts as the landing page for the dashboard. It provides an introduction to the report and allows users to navigate seamlessly to the detailed pages.

Contents:
- Navigation Buttons: Links to the Overview, Sales, and Customer report pages.
- Page Descriptions: Brief explanation of what each subsequent page covers.

Insights:
This page does not contain KPIs or visuals; it is designed purely for user-friendly navigation.

Overview Page
Purpose:
Provides a consolidated view of the business performance across sales, products, and customers.

KPIs Displayed:
- Total Sales ($29.4M)
- Total Units Sold (60K)
- Average Unit Price ($486)
- Count of Orders (28K)
- Total Customers (18K)

Visuals:
- Count of Product & Total Cost by Category
- Sales & Cost by Product Line
- Orders by Due Date, Order Date & Ship Date
- Total Quantity per Year

Insights:
- Road and Mountain product lines contribute the majority of sales revenue.
- Sales peaked in 2013, both in terms of orders and quantities.
- Product category distribution is skewed toward Bikes and Components.

Sales Report Page
Purpose:
Provides a detailed analysis of sales performance, highlighting key revenue indicators and sales distribution.

KPIs Displayed:
- Total Sales
- Total Units Sold
- Average Order Price
- Maximum Sales Amount
- Minimum Sales Amount

Visuals:
- Top 10 Products Sold (Clustered Bar Chart)
- Sales by Gender (Donut Chart)
- Sales by Marital Status (Donut Chart)
- Sales per Year (Line Chart)

Insights:
- Top 10 products generate the majority of sales.
- Gender and marital status segmentation supports targeted promotions.
- Year-over-year sales trend highlights peak years and seasonality.

Customer Report Page
Purpose:
To analyze customer distribution, behavior, and contribution to sales.

KPIs Displayed:
- Total Customers (18K)
- Purchase Frequency (3)
- Count of Orders (28K)
- Active Customers (27%)
- Inactive Customers (73%)

Visuals:
- Top 10 Customers by Sales
- Customer and Sales by Country
- Customer by Gender
- Customer by Marital Status
- Count of Customers per Time

Insights:
- Majority of customers are Male (50.54%) and Married (54.16%).
- USA and Australia dominate in both customers and sales.
- High percentage of inactive customers (73%) indicates a retention challen

KPI / Measure	DAX Formula	Description
Active Customers %	DIVIDE(CALCULATE(COUNTROWS(Dim_customers), Dim_customers[Customer Status] = "Active"), COUNTROWS(Dim_customers))	نسبة العملاء النشطين من إجمالي العملاء
Inactive Customers %	DIVIDE(CALCULATE(COUNTROWS(Dim_customers), Dim_customers[Customer Status] = "Inactive"), COUNTROWS(Dim_customers))	نسبة العملاء غير النشطين
Total Customers	DISTINCTCOUNT(Dim_customers[customer_key])	العدد الكلي للعملاء
Calculate Age	DATEDIFF(MIN(Dim_customers[birthdate]), TODAY(), YEAR)	حساب عمر العميل (بالسنوات)
Total Sales	SUM(Fact_sales[Sales])	إجمالي المبيعات
Sum of Sales per Customer	SUMX(VALUES(Dim_customers[customer_id]), CALCULATE(SUM(Fact_sales[Sales])))	إجمالي المبيعات لكل عميل
Max Sales	MAX(Fact_sales[Sales])	أعلى قيمة مبيعات
Min Sales	MIN(Fact_sales[Sales])	أقل قيمة مبيعات
Total Quantity	SUM(Fact_sales[Quantity])	إجمالي الكميات المباعة
Avg Unit Price	SUM(Fact_sales[Sales]) / SUM(Fact_sales[Quantity])	متوسط سعر الوحدة
AVG Order Price	SUM(Fact_sales[Sales]) / COUNT(Fact_sales[customer_key])	متوسط قيمة الطلبية
Count Orders	DISTINCTCOUNT(Fact_sales[Order_number])	عدد الطلبات
Orders by Order Date	COUNTROWS(Fact_sales)	عدد الطلبات بتاريخ الطلب
Orders by Due Date	CALCULATE(COUNTROWS(Fact_sales), USERELATIONSHIP(Fact_sales[Due_date], DateTable[Date]))	عدد الطلبات بتاريخ الاستحقاق

Orders by Ship Date	CALCULATE(COUNTROWS(Fact_sales), USERELATIONSHIP(Fact_sales[Ship_date], DateTable[Date]))	عدد الطلبات بتاريخ الشحن
Purchase Frequency	COUNT(Fact_sales[customer_key]) / DISTINCTCOUNT(Fact_sales[customer_key])	معدل الشراء المتكرر لكل عميل

Recommendations

Customers – Recommendations

1. Develop a Customer Retention Plan targeting inactive customers through personalized offers and email campaigns.
2. Focus on the most active age segment **in** marketing campaigns to maximize ROI.
3. Launch a Loyalty Program for high-frequency customers to maintain long-term engagement.

◇ Sales – Recommendations

1. Closely monitor inventory for Top 10 Products Sold to ensure continuous availability.
2. Design Targeted Marketing Campaigns based on customer characteristics (gender, marital status).
3. Leverage Seasonal Sales Peaks by preparing promotional campaigns and special offers in advance.

◇ Overview / General – Recommendations

1. Compare current KPI performance with strategic business targets (Benchmarking) to ensure growth objectives are met.
2. Establish monthly monitoring reports for key KPIs (customers, sales, products) to track performance consistently.
3. Utilize Customer Feedback & Ratings to improve product quality and enhance customer satisfaction.