**Sales Report Analysis using Power BI**

**Overview**

This repository contains the data model and analysis for a sales report designed in Power BI. The report provides insights into various dimensions of sales performance using a star schema design. The following sections describe the key tables and their relationships in the mod

**DimCustomer**

**Description**

The DimCustomer table holds customer-related data, enabling the analysis of sales performance by customer demographics, region, and other attributes.

**Key Attributes**

* CustomerKey: Unique identifier for each customer.
* FirstName: Customer’s first name.
* LastName: Customer’s last name.
* EmailAddress: Contact email of the customer.
* Address: Customer’s physical address.
* Region: Geographic region of the customer.
* Gender: Customer’s gender either male or female.
* Marital Status: Customer’s marital status: either married or single.
* Occupation: Customer’s work – clerical, management, manual, professional, and skilled manual.
* Education: Customer’s education – bachelors, graduate degree, high school, partial college, and partial high school.

**DimDate**

**Description**

The DimDate table provides a comprehensive date dimension for time-based analysis.

**Key Attributes**

* DateKey: Unique identifier for each date.
* FullDate: Full calendar date.
* Day: Day of the month.
* Month: Month name and number.
* Quarter: Fiscal quarter.
* Year: Calendar year.

**DimProduct**

**Description**

The DimProduct table contains product-specific information, facilitating the analysis of sales by product details.

**Key Attributes**

* ProductKey: Unique identifier for each product.
* ProductName: Name of the product.
* ProductDescription: Brief description of the product.

**DimProductCategory**

**Description**

The DimProductCategory table organizes products into high-level categories for aggregated analysis.

**Key Attributes**

* ProductCategoryKey: Unique identifier for each product category.
* CategoryName: Name of the product category.

**DimProductSubcategory**

**Description**

The DimProductSubcategory table further segments product categories into subcategories, enabling detailed analysis.

**Key Attributes**

* ProductSubcategoryKey: Unique identifier for each product subcategory.
* SubcategoryName: Name of the product subcategory.
* ProductCategoryKey: Foreign key linking to the DimProductCategory table.

**FactInternetSales**

**Description**

The FactInternetSales table is the central fact table in the model, storing transaction-level data for sales made over the internet.

**Key Attributes**

* SalesOrderNumber: Identifier for each sales order.
* OrderDateKey: Foreign key linking to the DimDate table.
* CustomerKey: Foreign key linking to the DimCustomer table.
* ProductKey: Foreign key linking to the DimProduct table.
* Quantity: Number of units sold.
* TotalSales: Total sales amount for the transaction.
* Profit: Profit earned from the transaction.

**Visualization**

This data model is visualized using Power BI to provide insights such as:

* Sales trends over time.
* Regional sales performance.
* Top-selling products and categories.
* Customer purchase behavior.
* Profitability by product and region.

**How to Use**

1. Clone this repository.
2. Open the Power BI file (SalesReport.pbix) in Power BI Desktop.
3. Review the report and interact with the visuals to explore the data insights.

**Contributing**

Contributions are welcome! If you have suggestions or enhancements, feel free to create a pull request or raise an issue.