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| KEY INSIGHTS | |
| # | **Visuals Key Insights** |
|  | * United State is the most contributing sales Country also it is the most profitable country. So can plan for some kind of appreciation rewards for customer of United State so that their consistency will be maintained. * France Sales performance is very low so we should give more here to increase the sales. * Road Bikes are the top most selling sub-category. * Caps, Socks and cleaners are those sub-categories whose selling are less * By the Analysis report we get an idea of Total Revenue, Total Orders and Total No of Return at a single glance. * Maximum number of orders are received from the age group of 51-70. * Age group of 41-50 is at the 3rd position in terms of No of orders placed but we can expect more business from this group so required to make strategy how we target more and more this group. * “Mountain-200 Black, 46” is most demandable product so we can increase the production of this model. * Surprisingly majority of our customer belongs to average income level and we have very less number of customers that belongs to high income level so need to make strategy so that we can more target those customers as well. |

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| Solution Highlights | |
| 1 | **Dataset & Power BI Connection** |
|  | SN Techno World has several datasets available for analysis, including a Calendar Table, Customers Table, Product Categories Table, Product Sub-Categories Table, Products Table, Returns Table, Territories Table, and Sales Table (covering 2022-2024). The datasets contain information on various aspects of the company's operations, including customer demographics, product information, sales data, and returns.  These all files are connected and loaded in Power BI. |
| 2 | **Data Cleaning** |
|  | Data cleaning has been performed by using Power Query which involves transforming, filtering and manipulating data to prepare it for analysis. |
| 3 | **Data Modeling** |
|  | Created relationship between tables in Power BI using a common column, it improve the accuracy and reliability of data analysis and visualization in the model view of Power BI |
| 4 | **Visuals Used** |
|  | Cards |
|  | Stacked bar chart |
|  | Stacked column chart |
|  | Pie Chart |
|  | Donut Chart |
|  | Slicer |
|  | Table |
|  | Text box |
|  | Pentagon shape |
| 5 | **DAX** (Data Analysis Expression) **Functions** |
|  | **Date Functions:**  Extracted month, year, quarter, start of month, start of year etc. in Calendar table  Month = FORMAT(Calendar\_Dim[Date], "mmm")  Start of Month = STARTOFMONTH(Calendar\_Dim[Date])  Yearly\_Quarter = QUARTER(EDATE(Calendar\_Dim[Date], -3))  Year = FORMAT(Calendar\_Dim[Date], "yyyy")  Start of Yr = STARTOFYEAR(Calendar\_Dim[Date])  calculated the age of customers based on their birthdate column  Age = DATEDIFF(Customers\_Dim[BirthDate], TODAY(),YEAR) |
|  | **Text Functions**  combined the Prefix, First Name, and Last Name columns into a new column called Full Name for the Customers table  Full\_Name = Customers\_Dim[Prefix] &" "& Customers\_Dim[FirstName] &" "&Customers\_Dim[LastName] |
|  | **Logical Function**  categorize customers into different age groups  Age Group = If(Customers\_Dim[Age] < 25, "below 25",  If(Customers\_Dim[Age] <= 40, "25-40",  if(Customers\_Dim[Age] <= 50, "41-50",  If(Customers\_Dim[Age]<= 70, "51-70",  if(Customers\_Dim[Age] <= 80, "71-80", "above 80")))))  categorize the "Income Range" column then display the results in a new column  Income Range = IF(Customers\_Dim[AnnualIncome]<=50000, "Low income", IF(Customers\_Dim[AnnualIncome]<=100000, "Average income", IF(Customers\_Dim[AnnualIncome]<=150000, "High income", "Very high income"))) |
|  | **Calculate Function**  Showing the total profit for the years 2022, 2023, and 2024 using the "Calculate" function  2022 = CALCULATE([Total\_Profit],Calendar\_Dim[Year]="2022", YEAR(Calendar\_Dim[Date]=2022))  2023 = CALCULATE([Total\_Profit],Calendar\_Dim[Year] = "2023", YEAR(Calendar\_Dim[Date]=2023))  2024 = CALCULATE([Total\_Profit],Calendar\_Dim[Year] = "2024", YEAR(Calendar\_Dim[Date]=2024)) |
|  | **Aggregation Function**  Show the total order number.  Total Order = SUM(Sales\_Fact[OrderQuantity])  Displays the total number of uniq orders  Total Uniq Order No = DISTINCTCOUNT(Sales\_Fact[OrderNumber])  Calculate total revenue  Total Revenue = SUMX(Sales\_Fact, Sales\_Fact[OrderQuantity] \* RELATED(Products\_Dim[ProductPrice]))  calculate the total cost of products  Total Cost = SUMX(Sales\_Fact,Sales\_Fact[OrderQuantity]\*RELATED(Products\_Dim[ProductCost]))  Calculate the total profit earned after deducting the total expenses from the total revenue.  Total\_Profit = [Total Revenue] - [Total Cost] |