**Data Spark: Illuminating Insights On Global Electronics**

Overall Insights for the Data Spark Project:

1. Total Sales (2016-2021):

Total sales across all years: 55.35M

Highest sales year: 2018 (12.5M)

Lowest sales year: 2021 (only Jan and Feb details, 1.02M)

Insight: There was a peak in sales in 2018 and a sharp drop in 2020 due to various external factors like the global pandemic. The data for 2021 is incomplete, with only January and February being available.

2. Profit Margin:

Total profit margin: 10.26M

The highest profit margin was in 2018 (3.32M), closely followed by 2019 (3.38M).

Insight: The years with higher total sales also show strong profit margins, indicating consistent profitability when sales volume increases.

3. Customer Count:

Total customers over the given years: 12K

Highest customer count: 2018 (4.76K)

Lowest customer count: 2021 (489)

Insight: 2018 saw the highest engagement from customers, while 2021 data is limited and likely incomplete.

4. Store Count:

Total store count: 58 over the years.

Insight: The store count has remained relatively stable, but a slight decline in 2021 shows a potential consolidation or store closure trend.

5. Average Customer Order:

Average order value: 4.66K

Highest in 2016 (2.67K) and lowest in 2021 (2.09K).

Insight: Average order values fluctuated, with a steady decline starting in 2020, indicating that customers are spending less per order.

6. Customer Purchase Frequency:

Overall frequency: 2.21

Insight: The purchase frequency peaked in 2018 (1.25), meaning that customer retention and repeated purchases were highest during this year.

7.Demographic Insights:

Gender distribution:

Over the years, the gender distribution has remained fairly consistent, with males slightly dominating at 51% and females at 49%.

Insight: The company maintains a balanced appeal across genders, which can be used to tailor gender-specific marketing strategies.

Age Group:

Largest contributor: Adults (33.79%) followed by Seniors (48.3%) and Youth (20.38%).

Insight: Most customers are adults, which indicates that the company’s product offerings align well with the working-age population, but there is potential for growth among the younger demographic.

8.Sales Analysis :

Top 3 Countries by Sales:

United States (647K), Canada (119.47K), and United Kingdom (73.9K).

Insight: The United States dominates sales, suggesting a significant market presence, but there is potential to grow in other regions like Canada and the UK.

Top 3 Sales by Store Country:

United States and Canada lead in-store sales, with Canada at 55.77%.

Insight: Focus on expanding online markets, especially in the United States, can drive future growth.

Top Cities by Sales:

Stockville, Toronto City, and Houston.

Insight: These cities represent prime markets for expansion or special promotions to maintain strong customer engagement.

9.Product and Brand Preferences:

Preferred Products:

Top 3 Preferred:

Adventure Works Desktop PC 2.30 MD Black

Adventure Works Desktop PC 2.33 XD Silver

Contoso DVD 7-inch Player Portable E200 Black

Insight: Adventure Works products, especially in the desktop PC segment, are highly favoured by customers, showing demand for tech and electronics.

Least Preferred Products:

A Datum Advanced Digital Camera M300 Black

A Datum All-in-One Digital Camera M200 (Green/Silver)

Insight: Cameras and similar devices from A Datum have seen low customer preference, suggesting these may require promotion or discontinuation.

Preferred Categories:

Computers, Games and Toys, Home Appliances.

Insight: These categories are favoured by customers, and expanding the product range in these areas can further drive sales.

Preferred Brands:

A Datum, Adventure Works, Contoso.

Insight: Adventure Works, in particular, stands out as a top choice, making it a brand to focus on for product diversification and marketing.

10.Top Sales by Category and Product:

Top Brands by Sales:

Adventure Works, Contoso, and Wide World Importers.

Top Categories by Sales:

Computers, Home Appliances, Cameras and Camcorders.

Insight: The most successful sales categories align with customer preferences. Focusing on strengthening these categories can boost overall sales.

Top Products by Sales:

Adventure Works 52" LCD HDTV X590 (Black/White)

Adventure Works Desktop PC 2.33 XD233 (Black)

Insight: Large electronics like HDTVs and desktop PCs are driving sales. These high-ticket items are likely to generate significant revenue and should be highlighted in marketing campaigns.

11.Final Strategic Insights:

The company has seen peak performance in 2018, but sales and customer engagement declined sharply in 2020 and 2021, partially due to limited data. Efforts should focus on re-engaging customers in post-pandemic years, potentially by:

Expanding online presence in Canada and improving sales in the UK and other underperforming European countries.

Focusing marketing efforts on high-demand categories like Computers, Home Appliances, and Games/Toys.

Addressing the underperformance of certain camera products from A Datum.

Adventure Works and Contoso have proven to be the most trusted brands, particularly in the tech and home appliance markets. Partnering with these brands or launching exclusive product lines could further enhance revenue.

This analysis provides a comprehensive look into sales trends, customer preferences, and key focus areas for growth.