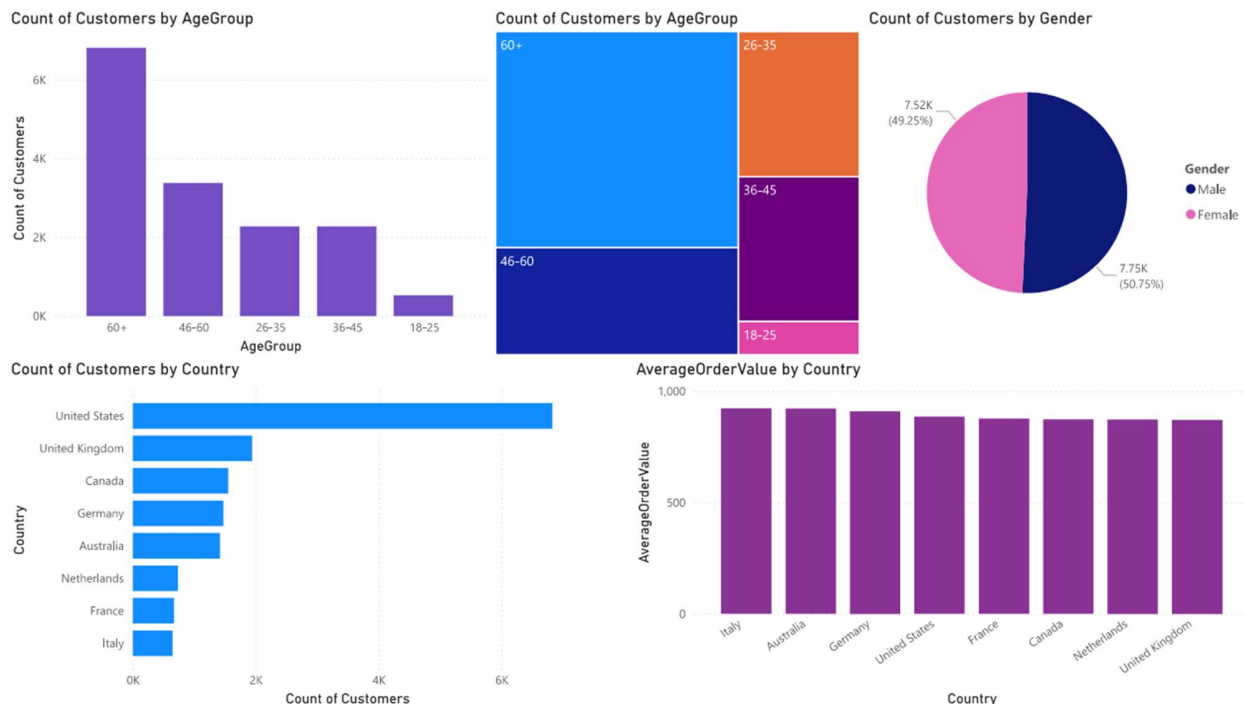


Data Sparks: – Illuminating for Global Electronics

Customer Insights



1. Customer Age Group Distribution

- Bar Chart (Top Left) & Tree Map (Top Center):
 - Largest group: **Age 60+** (around 6,000+ customers).
 - Next: **46–60 group** (~3,000 customers).
 - 26–35 and 36–45: **Almost similar, slightly above 2,000 customers each.**
 - Smallest: **18–25 group, very few (below 1,000 customers).**
- Conclusion: **The majority of customers are aged 60 and above. The business caters mostly to older adults.**

2. Customer Gender Distribution

- Pie Chart (Top Right):
 - Female: **49.25% (7.52K customers)**
 - Male: **50.75% (7.75K customers)**
- Conclusion: Slightly more males **than females, but the distribution is almost even.**

3. Customer Distribution by Country

- Bar Chart (Bottom Left):
 - United States: **Clearly the largest customer base (~6,000 customers).**
 - **Followed by:**
 - **United Kingdom**
 - **Canada**
 - **Germany**
 - **Australia**
 - **(Smaller numbers in Netherlands, France, and Italy)**
- Conclusion: **The business is heavily dominated by U.S. customers, with other countries significantly behind.**

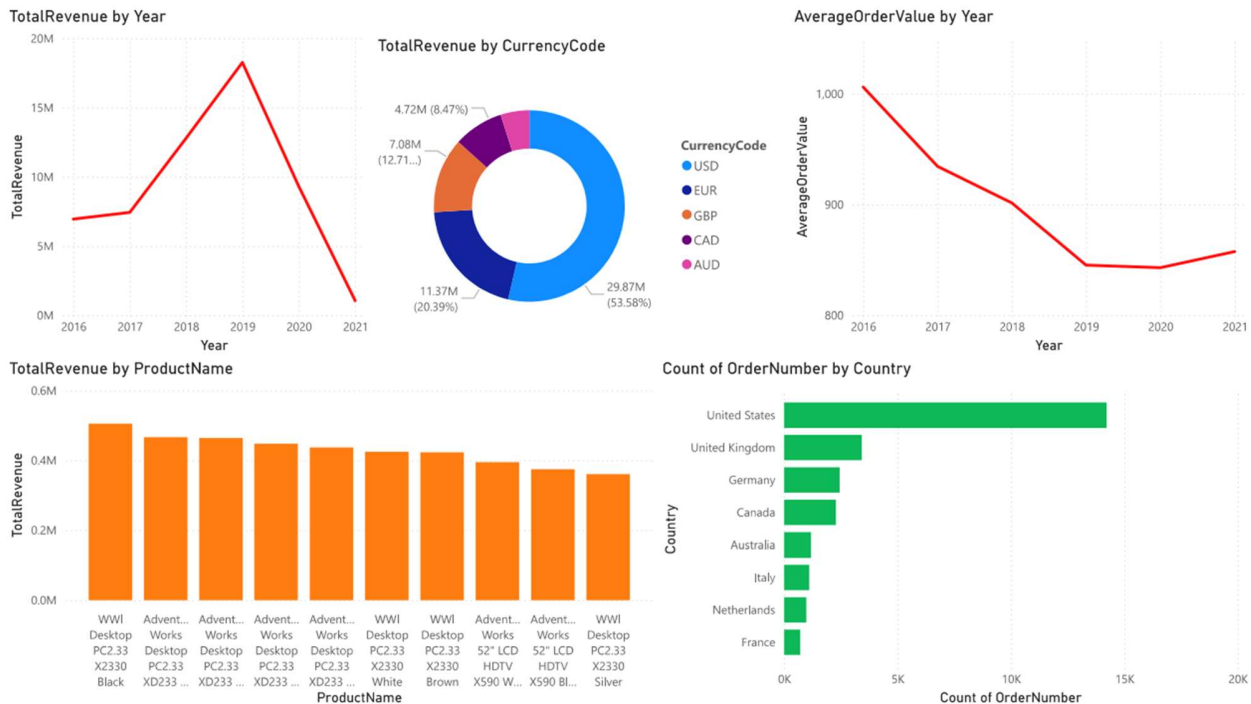
4. Average Order Value by Country

- Bar Chart (Bottom Right):
 - **The Average Order Value is fairly consistent across countries (~900–1000 units).**
 - **Slightly higher for Italy and Australia.**
- Conclusion: **Although customer count varies, the spending behavior is uniform across countries.**

Overall Insights

- **Older customers (60+) form the bulk of the customer base.**
- **A balanced male-to-female ratio.**
- **Major market concentration in the U.S.**
- **Customer spending (order value) is quite consistent across regions.**

Revenue Analysis



1. Total Revenue by Year

- Line Chart (Top Left):
 - Steady in 2016-2017, **slight growth**.
 - Big spike in 2018–2019, with **2019 being the peak year (~18M revenue)**.
 - Sharp drop in 2020, **almost to zero in 2021**.
- Conclusion: **Business boomed in 2019 but suffered a dramatic collapse afterward, possibly due to external factors like COVID-19 pandemic.**

2. Total Revenue by Currency

- Doughnut Chart (Top Center):
 - USD dominates: **53.58% of total revenue (29.87M)**.
 - Followed by:
 - EUR (20.39% - 11.37M)**
 - GBP (12.71% - 7.08M)**
 - CAD and AUD (smaller portions)**
- Conclusion: **Over half the business revenue is based on U.S. dollars — strong dependency on the U.S. market.**

3. Average Order Value by Year

- Line Chart (Top Right):
 - Highest in 2016 (~\$1000).
 - Steady decline **afterward, hitting a low in 2019 (~\$850).**
 - Slight recovery in 2021.
- Conclusion: **Customers are** spending less per order **over time, although a slight uptick happened recently.**

4. Total Revenue by Product

- Bar Chart (Bottom Left):
 - **Several "WWI Desktop PC" and "Adventure Works Desktop PC" models dominate the top-selling products.**
 - **Revenue per product is around \$400K–\$500K.**
- Conclusion: Desktops are the main revenue drivers, **specifically the X2330 and XD2333 models.**

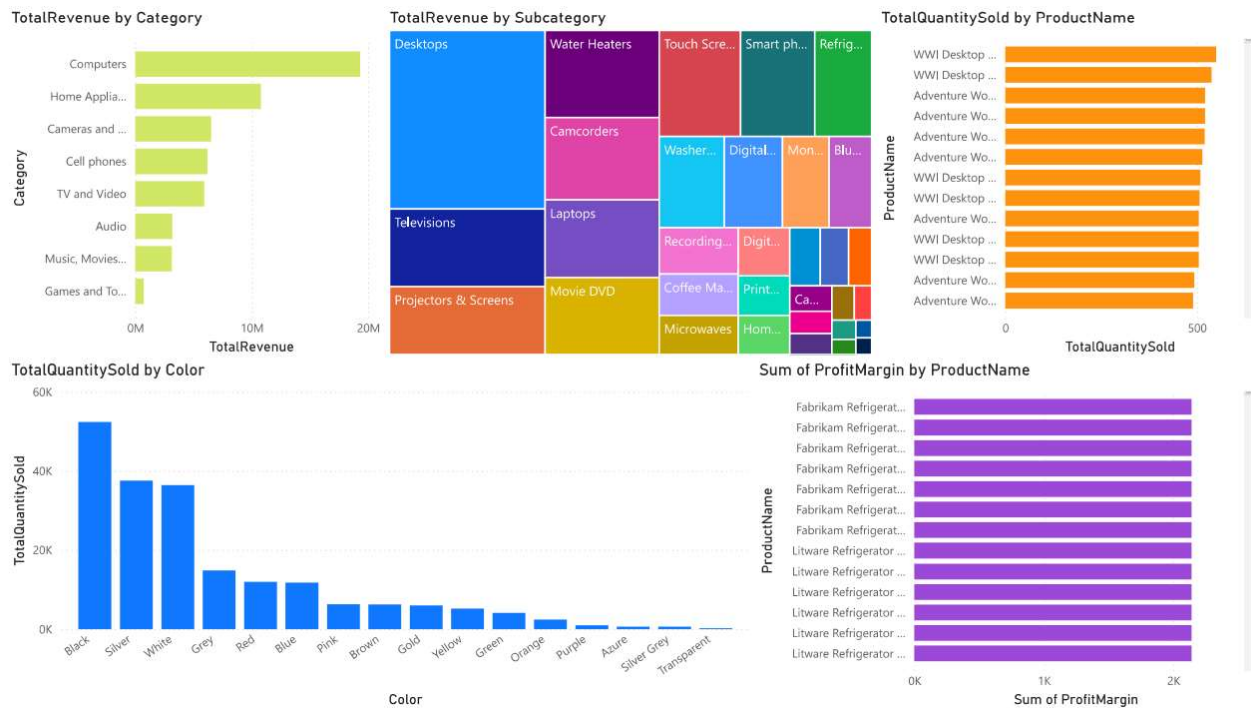
5. Order Count by Country

- Bar Chart (Bottom Right):
 - United States **far ahead (over 15,000 orders).**
 - **Followed by United Kingdom, Germany, Canada, Australia, Italy, Netherlands, and France — all much lower.**
- Conclusion: U.S. market is overwhelmingly dominant **in terms of order volume.**

Overall Insights

- **2019 was the peak year for both revenue and orders.**
- **Post-2019, sharp revenue fall but slight hope seen in 2021 (stabilizing).**
- **U.S. dollar and U.S. customers are critical for this business.**
- **Desktops (specific models) are top-selling products.**
- **Order values have been dropping, indicating either price cuts, discounts, or changing customer preferences.**

Product Analysis



1. Total Revenue by Category

- Bar Chart (Top Left):
 - Computers **category dominates revenue (~17M+).**
 - **Followed by** Home Appliances (~10M+).
 - **Then** Cameras and Camcorders, Cell Phones, TV and Video.
- Conclusion: Computers and Home Appliances **are the top revenue contributors.**

2. Total Revenue by Subcategory

- Tree Map (Top Center):
 - Desktops **generate the maximum revenue.**
 - **Followed by** Water Heaters, Camcorders, Touch Screens, Smartphones, Refrigerators, Televisions, **and** Laptops.
- Conclusion: Desktops and Water Heaters **are particularly strong performers inside their broader categories.**

3. Total Quantity Sold by Product Name

- Bar Chart (Top Right):
 - **Mostly** WWI Desktop **and** Adventure Works Desktop **products dominate in quantity sold (~500 units each).**
- Conclusion: **Again, desktop computers are the top-selling products in terms of volume.**

4. Total Quantity Sold by Color

- Bar Chart (Bottom Left):
 - **Black is the most popular color (nearly 60K units sold).**
 - **Followed by Silver and White (~40K units each).**
 - **Colors like Grey, Red, Blue, Pink sold moderately.**
- Conclusion: **Customers strongly prefer Black, Silver, and White colored products.**

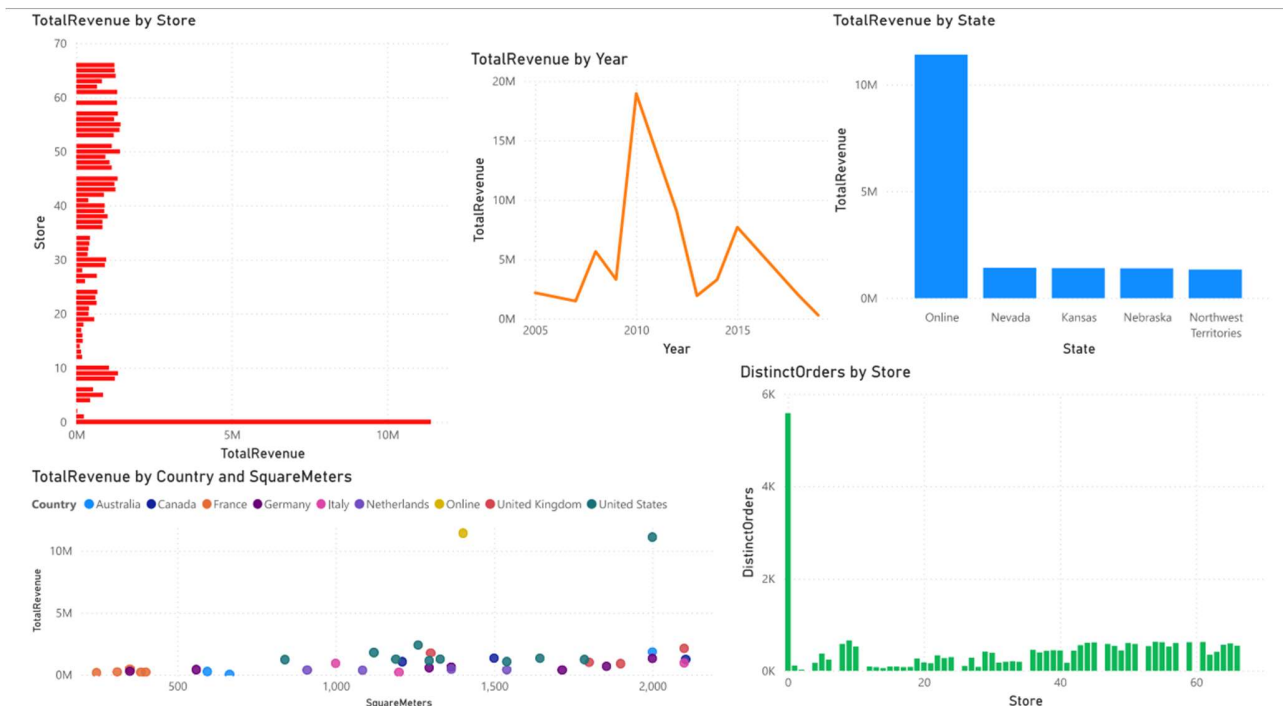
5. Sum of Profit Margin by Product Name

- Bar Chart (Bottom Right):
 - **Fabrikam Refrigerators and Litware Refrigerators dominate profit margins.**
 - **All top 10 profitable products are refrigerator models.**
- Conclusion: **Refrigerators (though maybe not highest in sales) are highly profitable items.**

Overall Insights

- Computers drive revenue **while** Desktops dominate both sales volume and revenue.
- Home appliances like Refrigerators **contribute significantly to** profit margin.
- Black-colored products **are the most sold.**
- **A strategic focus on** desktops for volume **and** refrigerators for profitability **can be beneficial.**

Store Analysis



1. Total Revenue by Store

- Bar Chart (Top Left):
 - **One store is dominating with a huge lead, around 10M+ revenue.**
 - **Most other stores have much smaller revenue in comparison.**
- Conclusion: **Revenue is highly concentrated in one store.**

2. Total Revenue by Year

- Line Chart (Top Center):
 - **Revenue peaked around 2010 (~20M).**
 - **Sharp decline after 2010, with a small secondary peak around 2015.**
- Conclusion: Post-2010 **decline indicates possible** market saturation, competition, **or** business model shift.

3. Total Revenue by State

- Bar Chart (Top Right):
 - Online **sales dominate, over 10M.**
 - **States like** Nevada, Kansas, Nebraska, and Northwest Territories **contribute very little comparatively.**
- Conclusion: Online **platform generates the bulk of the revenue compared to physical locations.**

4. Total Revenue by Country and SquareMeters

- Scatter Plot (Bottom Left):
 - **Bigger stores (above 1500 square meters) don't always generate higher revenue.**
 - Online **has a high total revenue with no physical space (makes sense).**
 - United States stores **show better revenue for their store size compared to other countries.**
- Conclusion: Square meter size doesn't directly correlate to revenue. Efficiency and location **matter more.**

5. Distinct Orders by Store

- Bar Chart (Bottom Right):
 - **Again, one store has almost 6000 orders (the same leading store from earlier).**
 - **Other stores have significantly fewer orders (most below 1000).**
- Conclusion: Top-performing store **not only has the highest revenue but also the most orders.**

Overall Insights

- Online sales **are critical for business success.**
- **One** top-performing store **drives a huge part of total sales and orders.**
- Revenue is not strongly linked to physical store size.
- **After 2010, a major** revenue drop **suggests a need for** re-evaluating strategies.
- State-specific **contributions are very minor compared to online.**