

The 5 business insights derived from the prepared EDA are as follows:

1. Cookware Dominates:

- **Insight:** Cookware sets (SoundWave & TechPro) are top sellers, indicating strong demand.
- **Elaboration:** The high sales of cookware sets suggest a significant market opportunity. The company should consider expanding its cookware line with new designs, features, and potentially private label options to capture a larger market share. This could involve introducing cookware sets with specific functionalities (e.g., non-stick, induction-compatible), exploring different materials (e.g., cast iron, ceramic), and offering a wider range of sizes and styles.

2. SoundWave is a Key Brand:

- **Insight:** SoundWave has a strong presence across various product categories with multiple high-selling items.
- **Elaboration:** SoundWave appears to be a well-established and trusted brand within the company's product portfolio. Leveraging this brand equity is crucial. This could involve targeted marketing campaigns that highlight the SoundWave brand, exploring exclusive product lines under the SoundWave brand, and potentially expanding into new product categories under the SoundWave name.

3. Headphones and Desk Lamps are Popular:

- **Insight:** These categories consistently perform well across brands.
- **Elaboration:** The consistent demand for headphones and desk lamps suggests a strong market for these products. The company can capitalize on this by introducing innovative products within these categories, such as noise-canceling headphones, smart desk lamps with adjustable brightness and color temperature, and wireless charging capabilities. Additionally, bundling these products with other popular items or offering limited-time promotions can further boost sales.

4. Data Quality is Good:

- **Insight:** The absence of missing values in the datasets ensures the reliability of the analysis and any subsequent decisions based on the insights.
- **Elaboration:** The absence of missing values in the data is crucial for accurate analysis and informed decision-making. Maintaining data integrity is essential for ongoing business operations. This includes implementing robust data collection and entry processes, conducting regular data quality checks, and addressing any data discrepancies promptly.

5. Sales Seasonality:

- **Insight:** The monthly sales plot indicates potential seasonality. Further analysis is needed to identify specific peak and low seasons.
- **Elaboration:** The observed fluctuations in monthly sales suggest that there might be seasonal variations in demand for certain products or across different product categories. Further analysis

of sales data over multiple years can help identify specific peak and low seasons. This information can then be used to optimize inventory levels, plan targeted marketing campaigns during low seasons to boost sales, and adjust promotional strategies to align with seasonal demand patterns.