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# Midterm Exam

In our sales and profit analysis, "Technology" emerges as the top-performing category, excelling in both sales and profit, with sub-categories like "Phones" (from Technology) and "Chairs" (from Furniture) contributing significantly to total sales: both are more than 14% in sales. The "Technology" category also boasts the highest profit, primarily driven by standout performers like "Copiers"(almost 20%), "Phones” and “Accessories" (near 15% each). In contrast, the "Furniture" category, while accounting for a substantial portion of total sales (32,3%), experiences notably lower profitability (6.44%). Further investigation is necessary to determine if "Furniture" negatively impacts more profitable categories, particularly in the case of "Tables" and "Bookcases," which are currently operating at a loss. To enhance overall profitability, a strategic focus on high-performing categories like "Phones" and "Copiers" is advisable. Additionally, it's essential to analyze the impact of some small office supplies on other sales, as they are currently not contributing to profits.

Sales and profits based on customer segmentation carry similar significance, so discussing them separately isn't necessary. Roughly 50% of our sales come from individual consumers. By incorporating an additional 20% from home office customers, which are likely individuals as well, it becomes evident that prioritizing individuals over companies as our strategic customers for future sales is the prudent choice. Regrettably, we can't conduct further segmentation analysis based on factors like gender, age, or professional sphere due to the absence of such data in our records.

The highest sales are concentrated in the wealthiest states, primarily California (Los Angeles) and New York (New York City), while all other states contribute less than 7% of total sales. Notably, these states and cities also exhibit the highest profitability. Additionally, Seattle shows a promising trend in terms of profitability. Therefore, it's essential to conduct a more in-depth analysis of the Seattle market to gain insights on how to leverage and replicate this success in other areas or improve it in Seattle.

Small discounts (0.2) increase the sales for some types of objects (chairs, phones), but makes a profit less interesting. Large discounts do nor really affect sales and lead to losses, so it is better to reanalyze the discounting policy.