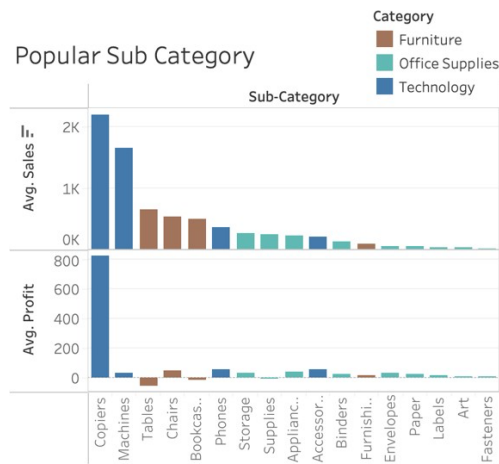The following dashboard is created on Tableau, the data is from supermarkets. The objective of this project is to practice delivering data visualization solutions in Tableau and drive business insight.
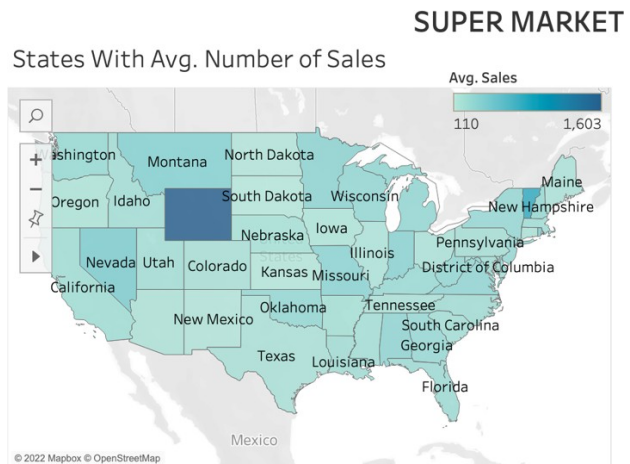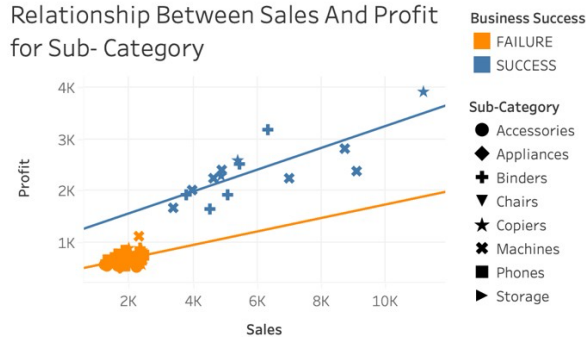
Popular Sub Category

Category
- Furniture
- Office Supplies
- Technology

SUPER MARKET

States With Avg. Number of Sales

Avg. Sales
110 — 1,603

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Average Sales Per Sub Category

Sub-C..	
Accessories	$216
Appliances	$231
Art	$34
Binders	$134
Chairs	$532
Copiers	$2,199
Envelopes	$65
Furnishings	$96
Labels	$34
Machines	$1,646
Paper	$57
Phones	$371
Storage	$265

Average Profit Per Sub Category

Sub-C..	
Accessories	$54.1
Appliances	$38.9
Art	$8.2
Binders	$19.8
Chairs	$43.1
Copiers	$817.9
Envelopes	$27.4
Furnishings	$13.6
Labels	$15.2
Machines	$29.4
Paper	$24.9
Phones	$50.1
Storage	$25.2

Relationship Between Sales And Profit for Sub- Category

Business Success
- FAILURE
- SUCCESS

Sub-Category
- ● Accessories
- ◆ Appliances
- ✚ Binders
- ▼ Chairs
- ★ Copiers
- ✖ Machines
- ■ Phones
- ▶ Storage

Hook: It is neither furniture nor office supplies that have high sales volume in the United States, guess what? It is the technology that grabs the heaps of profits among the other two categories.

From the analysis of the Super Market case, we came to know that among all sub-categories copier has higher average sales and average profit, making it a **STAR** in the **BCG matrix**. Moreover, the sub-category product machine is a **cash cow** because it has more average sales and profit. Both high-performing subcategories belong to the category of Technology which outperforms office supplies and furniture.

Technology remained the most popular category throughout all the states of America based on a higher number of average sales and average profit. Nevertheless, Wyoming state has the highest sales which looks like an outlier. Whilst, South Dakota had the lowest average sales among all. Shockingly, the sub-category which best performed in Wyoming state is chairs. The sub-category copiers which is our star product has high sales and profits in California, not in Wyoming. Among the other outliers which have negative profit were sub-category products such as tables and bookcases that were removed during the analysis.

The sub-category product binders have high orders but low sales and low profits, perhaps this is the reason a high discount is offered on binders to increase their sales volume. Comparatively, the copier has high profit and sales with lower discounts.

Relationship between sales and profit:
The relationship between average sales and average profit is positive as checked through trend lines. They have a 0.69 R-squared which shows evidence of their good fit.

Recommendations:
1. There should be an increment in the discount offering for "phones" instead of wasting discounts on "binders" because phones have high sales and high average profit compared to binders, therefore, the discount increment for phones will boost the sales for the supermarket. However, binders have a higher number of orders compared to phones, whereas, avg. sales and avg. profit was lower than the phones.

2. The sub-category product of chairs which had huge profit earnings in Wyoming state has not done good in California state, therefore, it should be replaced with "phones" which have a higher avg. profits in California compared to chairs. Technology is always a hot topic in a state like California, therefore, this data makes sense

3. The sub-category product binders looked like a question mark sometimes because it has higher sales and higher profits at the point. Nonetheless, some states like North Dakota it has low sales compared to the same category product – storage. Therefore, as a marketing analyst, I would spend my advertising budget depending on the popularity of the product in any state. For example, the sub-category art performed terribly overall, but it has a good profit margin in North Dakota compared to binders. So, giving discounts and spending on promotional activities for art in North Dakota would be a good fit for me.