Final project of Data Analyst

SALES ANALYSIS OF GLOBAL SUPERSTORE

Student: **Le Bao Nuong**

Class: **PL300-73**

CONTENTS

1. Introduction of company

- **Name**: Global Superstore
- **Headquarter**: US
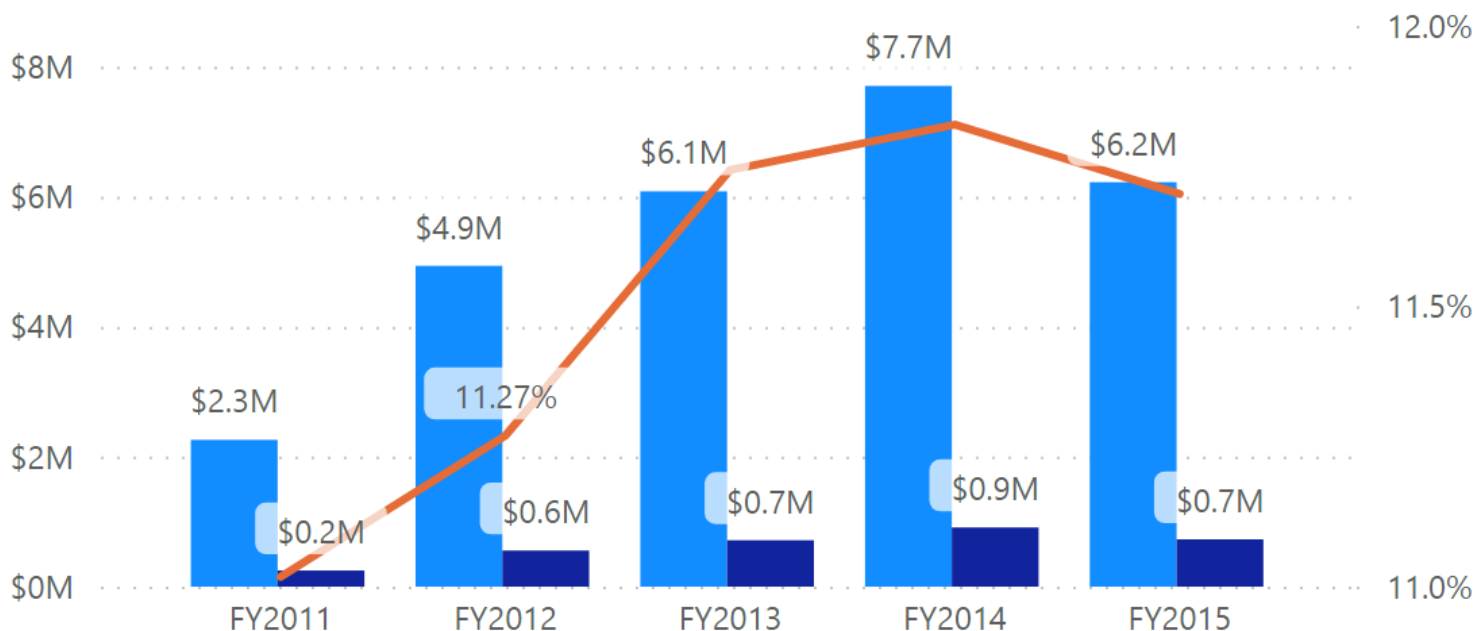- **Business field**: international e-commerce
- **Year**: from 2011 to 2015

2. Sales Overview

Revenue & Profit trend:

Revenue, Profit and Profit Margin by Year

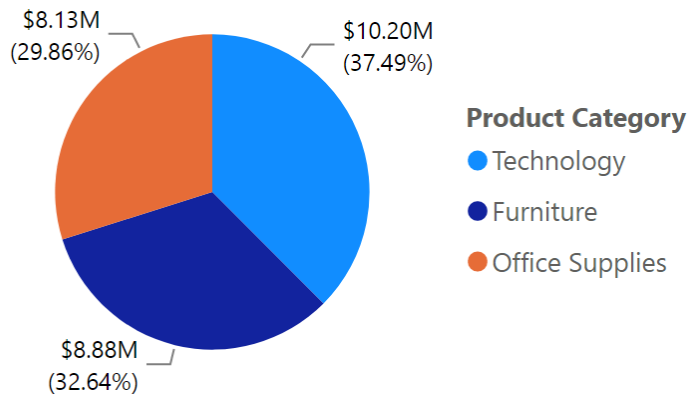● Revenue ● Profit ● Profit Margin

- General trend: **increase** in the **first four years**, and **decrease** in the **last year**

2. Sales Overview

Product – Customer:

Revenue by Product Category

$8.13M
(29.86%)

$10.20M
(37.49%)

$8.88M
(32.64%)

Product Category
- Technology
- Furniture
- Office Supplies

Revenue by Customer Segment

$0.40M (1.47%)

$5.08M (18.69%)

$13.42M
(49.31%)

$8.31M (30.53%)

Customer Segment
- Consumer
- Corporate
- Home Office
- Small Business
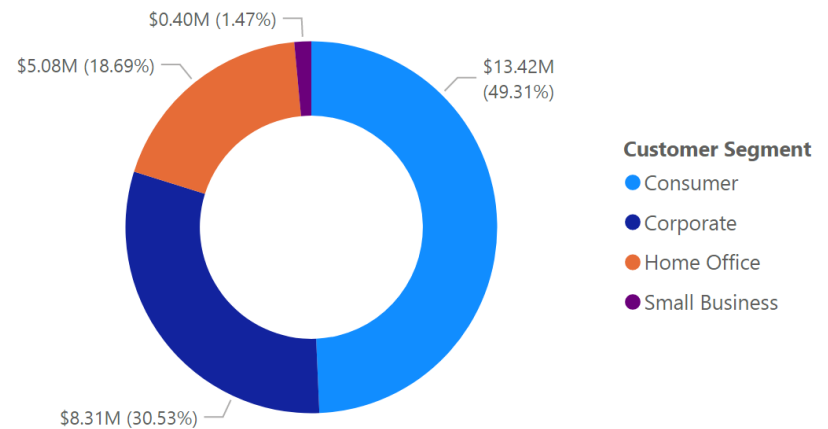
- Product category: **Technology** (38%)

- Customer segment: **Consumer** (49%) & **Corporate** (31%)

2. Sales Overview

Markets:

- Main markets:

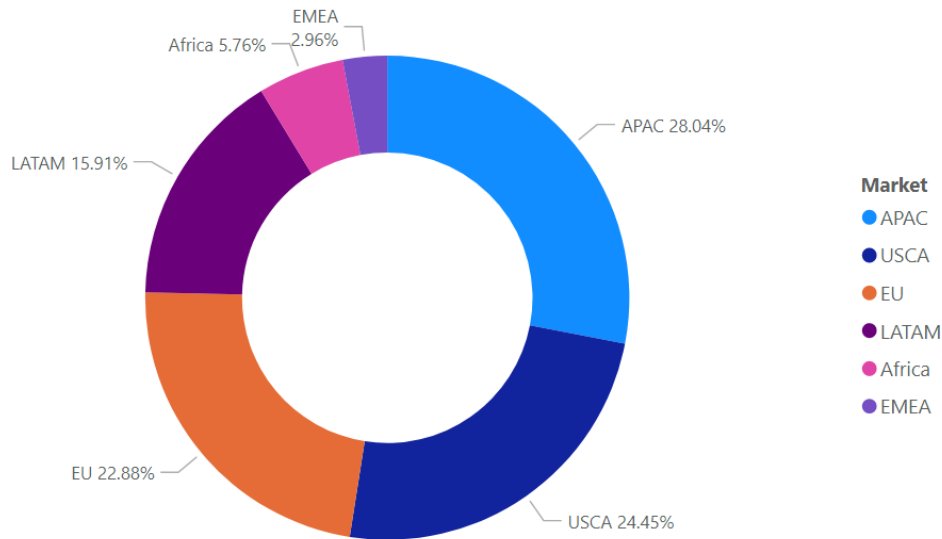 US & Canada – LATAM – EU – ME & Africa - APAC

2. Sales Overview

Markets:

Revenue by Market

Market
- APAC
- USCA
- EU
- LATAM
- Africa
- EMEA

- Main markets:
- ✓ **APAC** (28%)
- ✓ **USCA** (25%)
- ✓ **EU** (23%)
- ✓ **LATAM** (16%)

2. Sales Overview

Countries:

Top 5 Countries by Revenue

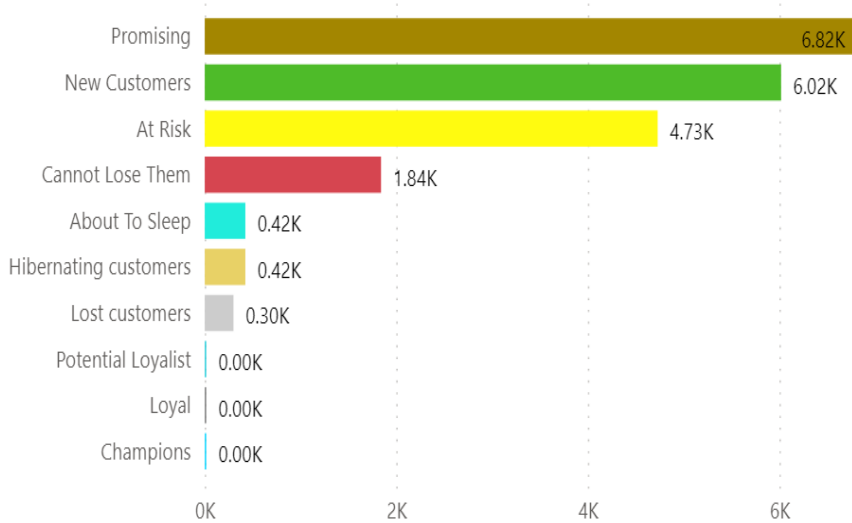Country ● Australia ● China ● France ● Germany ● United States
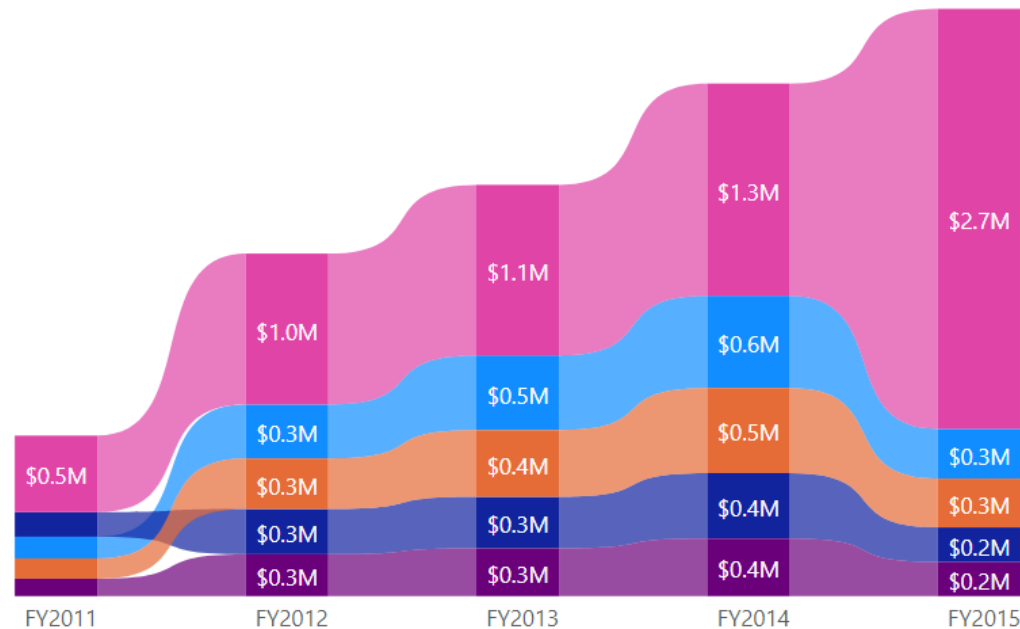
- **Top 5 countries by revenue**: USA, Australia, France, China, Germany.
- **US** was the **main contributor** with total revenue being $6.5M
- **Opposite trend** in **2015**: increase in US, decrease in the 4 remaining countries.

3. Dimension: Customer

Total Customers by Segment

Segment	Value
Promising	6.82K
New Customers	6.02K
At Risk	4.73K
Cannot Lose Them	1.84K
About To Sleep	0.42K
Hibernating customers	0.42K
Lost customers	0.30K
Potential Loyalist	0.00K
Loyal	0.00K
Champions	0.00K

'Promising, New customers, At risk' segments were the **main contributor** to total number of customers (18k customers equivalent to **80% of total customers**)
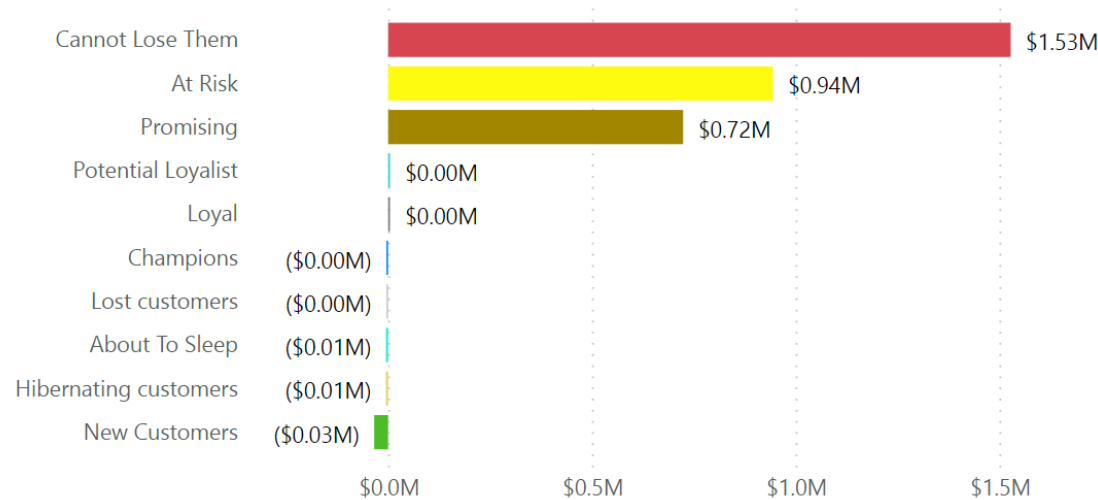
CustomerID	Recency	Frequency	Monetary	RFM Score	Segment	Customer Segment
TC-209801402	0	1	$3,499.99	145	At Risk	Corporate
HL-150401406	0	1	$3,499.99	245	At Risk	Consumer
CC-123701406	0	1	$1,217.4797	245	At Risk	Consumer
TA-213851406	0	1	$1,050.1968	245	At Risk	Home Office
RB-193601404	252	2	$1,018.7111	245	At Risk	Consumer
2896	0	1	$880.6275	245	At Risk	Home Office
1793	0	1	$871.1125	515	Promising	Home Office
651	0	1	$862.6563	245	At Risk	Consumer
TS-1143060	0	1	$654.24	244	At Risk	Corporate
Co-1264058	0	1	$654.24	513	Promising	Consumer
JL-523523	0	1	$654.24	514	Promising	Consumer
Total	**1823**	**20936**	**$155.4985**			

Predictive Segments (RFM)

3. Dimension: Customer

Profit by Segment

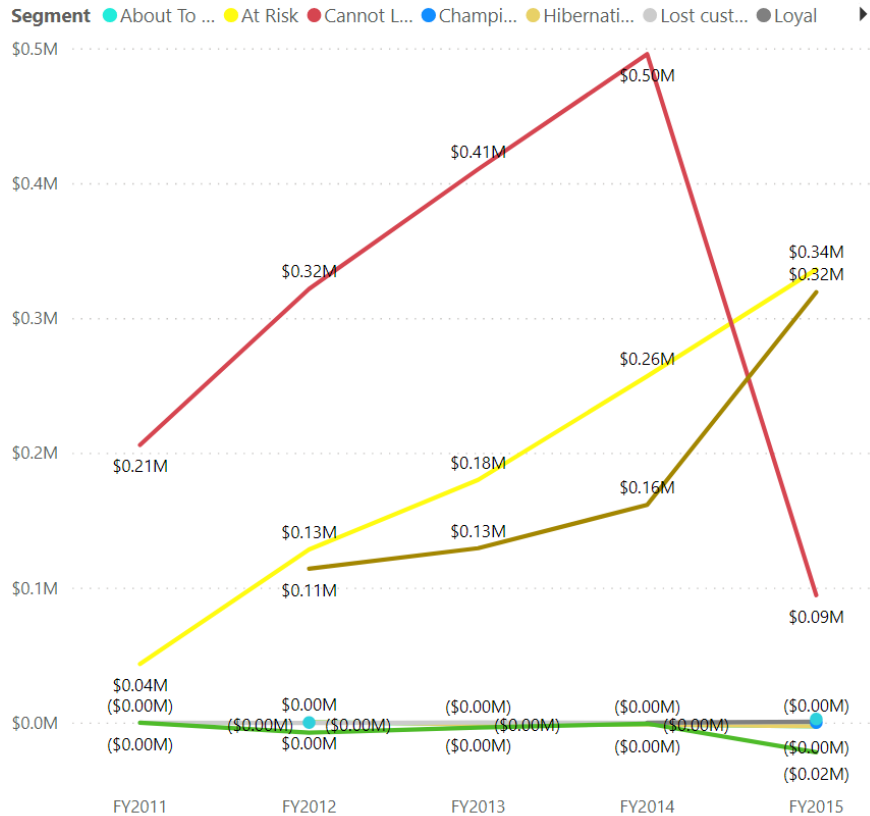| Segment	Revenue	Profit	% Revenue by Segment	% Profit by Segment
Cannot Lose Them	$11,882,398.23	$1,527,704.3684	43.67%	48.36%
At Risk	$8,619,954.02	$944,334.6708	31.68%	29.89%
Promising	$5,872,942.27	$723,836.3931	21.58%	22.91%
Potential Loyalist	$1,293.20	$2,583.2632	0.00%	0.08%
Loyal	$2,425.37	$482.6562	0.01%	0.02%
Champions	$646.66	($73.94)	0.00%	-0.00%
Lost customers	$54,761.53	($370.5558)	0.20%	-0.01%
About To Sleep	$79,893.74	($5,335.3955)	0.29%	-0.17%
Hibernating customers	$79,893.74	($5,335.3955)	0.29%	-0.17%
New Customers	$695,026.68	($34,169.2639)	2.55%	-1.08%
Total	**$27,209,341.70**	**$3,158,992.1965**	**100.00%**	**100.00%**

- Although **'Cannot Lose Them'** segment had only 9% of total customers, it was the **main contributor to the profit (48%).**

- **'At risk'** and **'Promising'** segments contribute 32% and 22% to total profit.
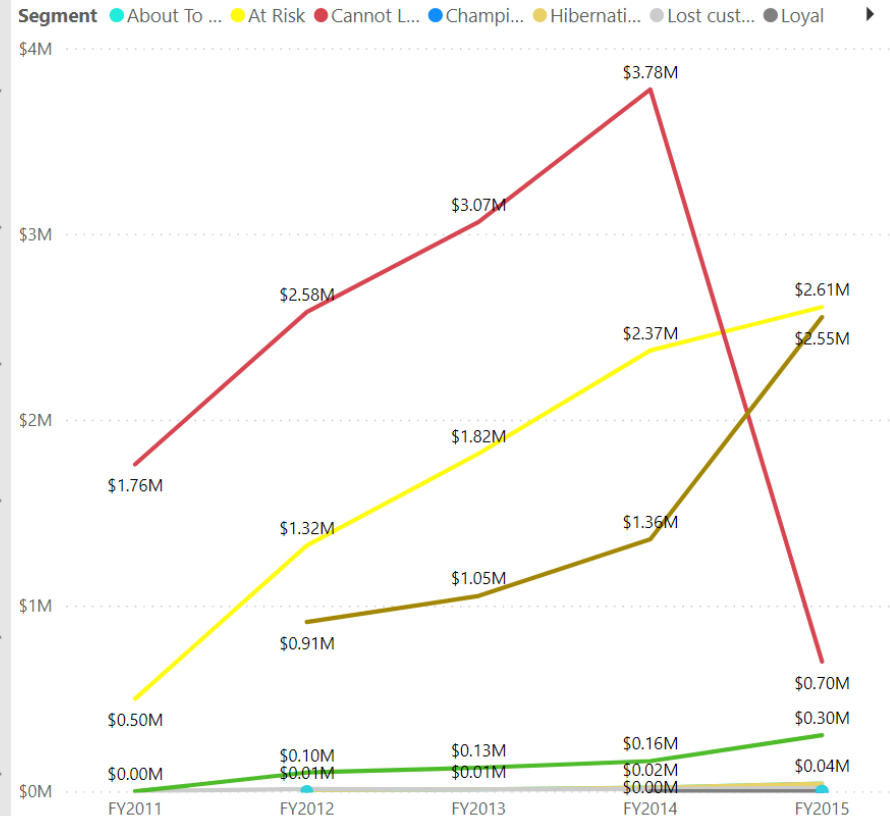
- **Indicated: Pareto principle**
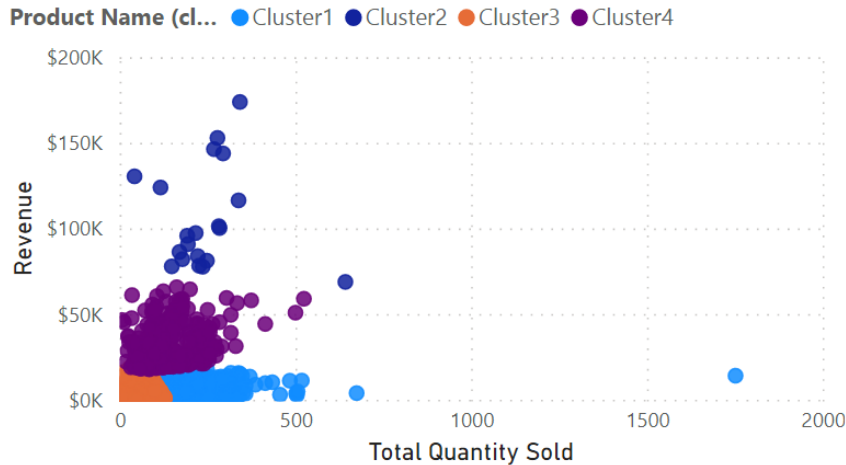
3. Dimension: Customer

Opposite trend: **increase** in 'At risk' and 'Promising' segments and **decrease** in 'Can not lose them' segment in 2015.

4. Dimension: Product

Product category:

Total Quantity Sold and Revenue by Product Name and Product Name (clusters)

Product Name (cl... ● Cluster1 ● Cluster2 ● Cluster3 ● Cluster4

Sales priority:

Technology > **Furniture** > Office supplies.

Product Category	Furniture		Office Supplies		Technology		Total	
Product Name (clusters)	Count of Product Name	%RT Revenue	Count of Product Name	%RT Revenue	Count of Product Name	%RT Revenue	Count of Product Name	%RT Revenue
Cluster1	8242	28.33%	37799	41.69%	7591	29.97%	53632	100.00%
Cluster2	514	30.29%	204	9.14%	660	60.57%	1378	100.00%
Cluster3	6875	32.93%	21665	28.40%	7671	38.67%	36211	100.00%
Cluster4	4505	35.52%	3965	27.52%	4841	36.96%	13311	100.00%
Total	**20136**	**32.64%**	**63633**	**29.86%**	**20763**	**37.49%**	**104532**	**100.00%**

4. Dimension: Product

Product sub-category:

Top 5 Product Sub-Categories by Profit
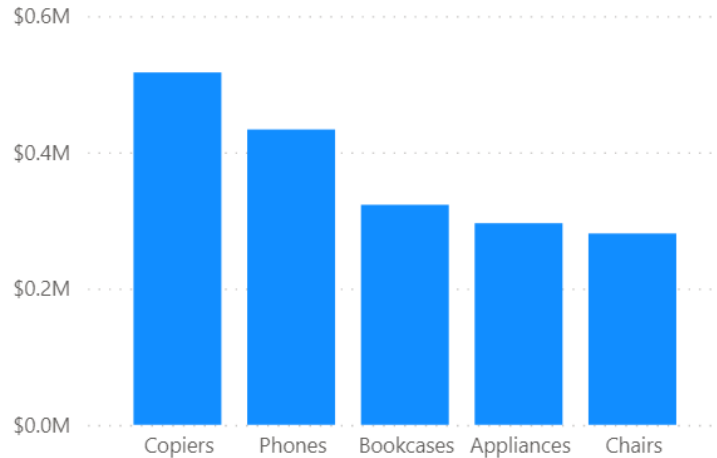
Bottom 5 Product Sub-Categories by Profit
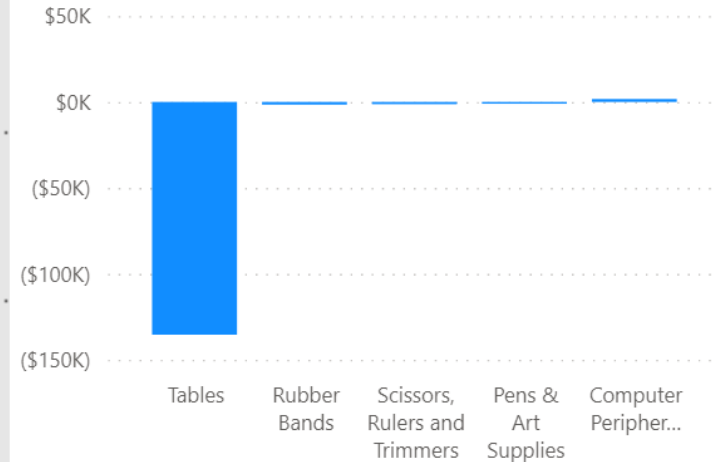
Product Sub-Category by Profit

Product Sub-Category	Profit	Product Sub-Category Rank DESC ▾	TOP 5 Products Sub-Category	Product Sub-Category Rank ASC	Bottom 5 Products Sub-Category
Tables	($135,407)	28		1	($135,407)
Rubber Bands	($1,545)	27		2	($1,545)
Scissors, Rulers and Trimmers	($1,291)	26		3	($1,291)
Pens & Art Supplies	($258)	25		4	($258)
Computer Peripherals	$1,698	24		5	$1,698
Storage & Organization	$7,124	23		6	
Office Machines	$8,824	22		7	
Office Furnishings	$18,724	21		8	
Copiers and Fax	$23,990	20		9	
Fasteners	$25,370	19		10	
Total	**$3,158,992**	**1**	**$3,158,992**	**29**	

4. Dimension: Product

Product sub-category:

Product Category	Revenue	Profit	Profit Margin
⊟ **Office Supplies**	**$8,125,931.36**	**$1,126,595**	**13.86%**
Binders and Binder Accessories	$185,928.14	$59,296	31.89%
Labels	$151,669.13	$37,028	24.41%
Paper	$541,893.17	$125,089	23.08%
Envelopes	$350,601.56	$57,256	16.33%
Binders	$923,780.90	$144,883	15.68%
Art	$743,705.12	$115,784	15.57%
Fasteners	$172,737.36	$25,370	14.69%
Appliances	$2,103,800.98	$295,838	14.06%
Storage	$2,253,898.83	$216,878	9.62%
Supplies	$485,885.35	$45,142	9.29%
Storage & Organization	$177,417.60	$7,124	4.02%
Pens & Art Supplies	$26,071.61	($258)	-0.99%
Scissors, Rulers and Trimmers	$6,752.18	($1,291)	-19.12%
Rubber Bands	$1,789.43	($1,545)	-86.33%
⊟ **Technology**	**$10,201,379.95**	**$1,402,861**	**13.75%**
Copiers and Fax	$99,069.48	$23,990	24.22%
Telephones and Communication	$198,764.49	$40,791	20.52%
Accessories	$1,498,474.04	$259,253	17.30%
Copiers	$3,018,872.55	$517,135	17.13%
Phones	$3,413,648.28	$433,434	12.70%
Machines	$1,558,120.13	$117,736	7.56%
Office Machines	$318,169.68	$8,824	2.77%
Computer Peripherals	$96,261.30	$1,698	1.76%
⊟ **Furniture**	**$8,882,030.39**	**$629,537**	**7.09%**
Office Furnishings	$98,070.91	$18,724	19.09%
Chairs & Chairmats	$261,072.73	$48,696	18.65%
Furnishings	$770,734.22	$93,813	12.17%
Bookcases	$3,040,940.57	$322,918	10.62%
Chairs	$3,003,363.53	$280,793	9.35%
Tables	$1,707,848.43	($135,407)	-7.93%
Total	**$27,209,341.70**	**$3,158,992**	**11.61%**

Focus on **selling product sub-categories** having **profit margin > 15%**

5. Dimension: Ship Mode

Revenue by Ship Mode

Same Day 5.34%
First Class 14.34%

Ship Mode
- Standard Class
- Second Class
- First Class
- Same Day

Second Class 20.16%

Standard Class 60.15%
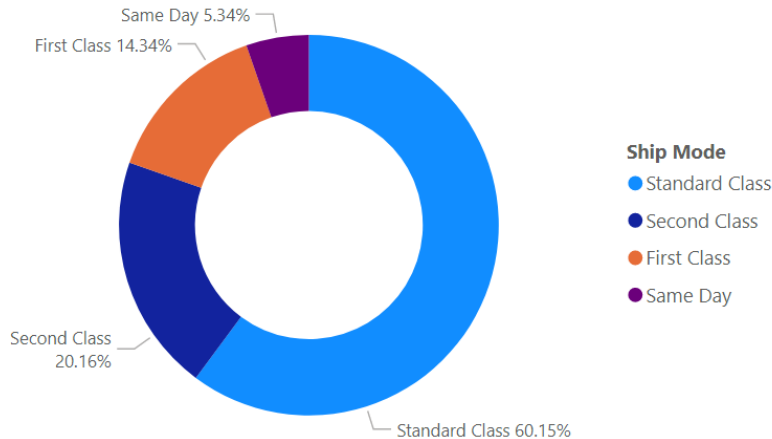
Shipping cost by Ship Mode

Same Day 8.65%
First Class 22.75%

Standard Class 45.47%

Ship Mode
- Standard Class
- Second Class
- First Class
- Same Day

Second Class 23.12%

---
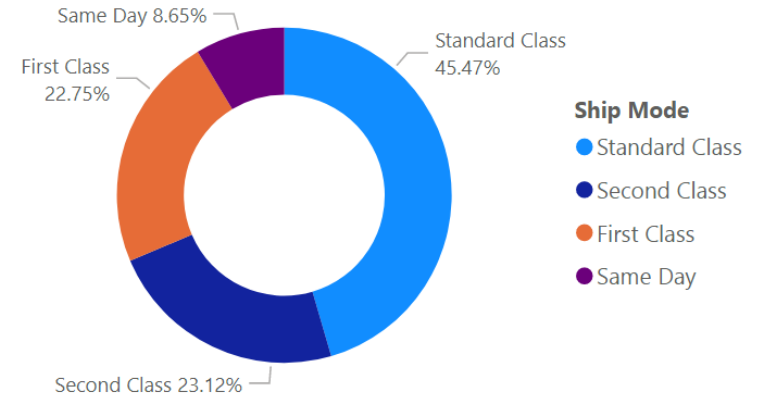
4 main ship modes:

1. **Same Day** (Shipping on **Same Day**)
2. **First Class** (Shipping within **1 Day**)
3. **Second Class** (Shipping within **3 Days**)
4. **Standard Class** (Shipping within **6 Days**)

- **Standard Class** was the **main contributor** to **Revenue** (60%) and **Shipping cost** (46%)
- The second and third contributor to Revenue was **Second Class** (20%) and **First Class** (14%)

5. Dimension: Ship Mode

5. Dimension: Ship Mode

Shipping Efficiency (by Number of Orders)

Ship Mode	Total Orders	Total Orders by Year
First Class	**6,314**	
Shipped Late	5,028	
Shipped On Time	1,298	
Same Day	**2,248**	
Shipped Late	94	
Shipped On Time	2,154	
Second Class	**8,456**	
Shipped Earlier	3,341	
Shipped Late	3,430	
Shipped On Time	1,703	
Standard Class	**25,306**	
Shipped Earlier	17,691	
Shipped Late	2,577	
Shipped On Time	5,167	
Total	**41,906**	

Shipping Efficiency (by Percentage)

Ship Mode	FY2011	FY2012	FY2013	FY2014	**Total**
First Class	**15.38%**	**14.99%**	**14.74%**	**15.28%**	**15.07%**
Shipped Late	12.32%	12.01%	11.69%	12.14%	**12.00%**
Shipped On Time	3.09%	2.99%	3.10%	3.17%	**3.10%**
Same Day	**5.20%**	**5.25%**	**5.49%**	**5.38%**	**5.36%**
Shipped Late	0.25%	0.24%	0.21%	0.21%	**0.22%**
Shipped On Time	4.95%	5.01%	5.27%	5.17%	**5.14%**
Second Class	**20.23%**	**19.74%**	**19.95%**	**20.62%**	**20.18%**
Shipped Earlier	8.18%	8.02%	7.96%	7.89%	**7.97%**
Shipped Late	8.13%	8.16%	8.12%	8.27%	**8.18%**
Shipped On Time	3.92%	3.60%	3.89%	4.54%	**4.06%**
Standard Class	**60.16%**	**60.75%**	**60.67%**	**60.00%**	**60.39%**
Shipped Earlier	42.75%	43.14%	42.14%	41.53%	**42.22%**
Shipped Late	6.17%	6.03%	6.13%	6.23%	**6.15%**
Shipped On Time	11.49%	11.82%	12.63%	12.66%	**12.33%**
Total	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**

- **Increase trend** of **number of orders** over the years.

- **Standard Class** was the **main contributor** to **the total number of orders** (25k equivalent to **60%**).
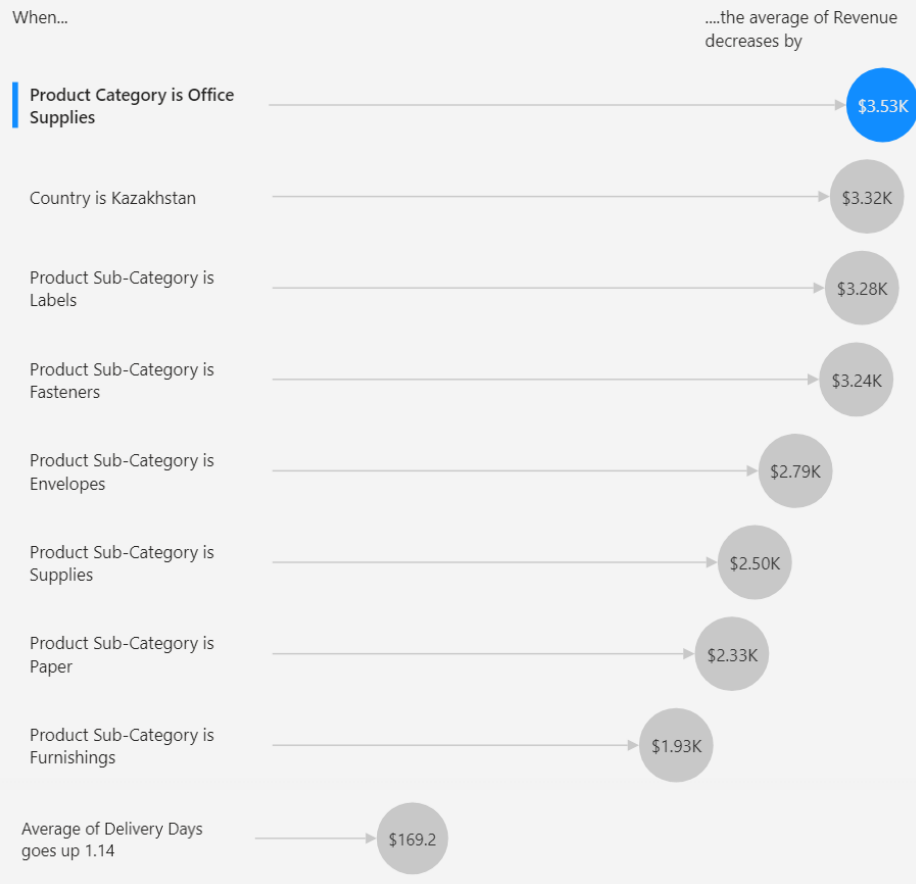
(+): The percentage of **Shipped Late** of **Same Day** was quite low (0.22%).

(-): The percentage of **Shipped Late** of **Standard Class, First Class, Second Class** was respectively 6%, 12% and 8%.
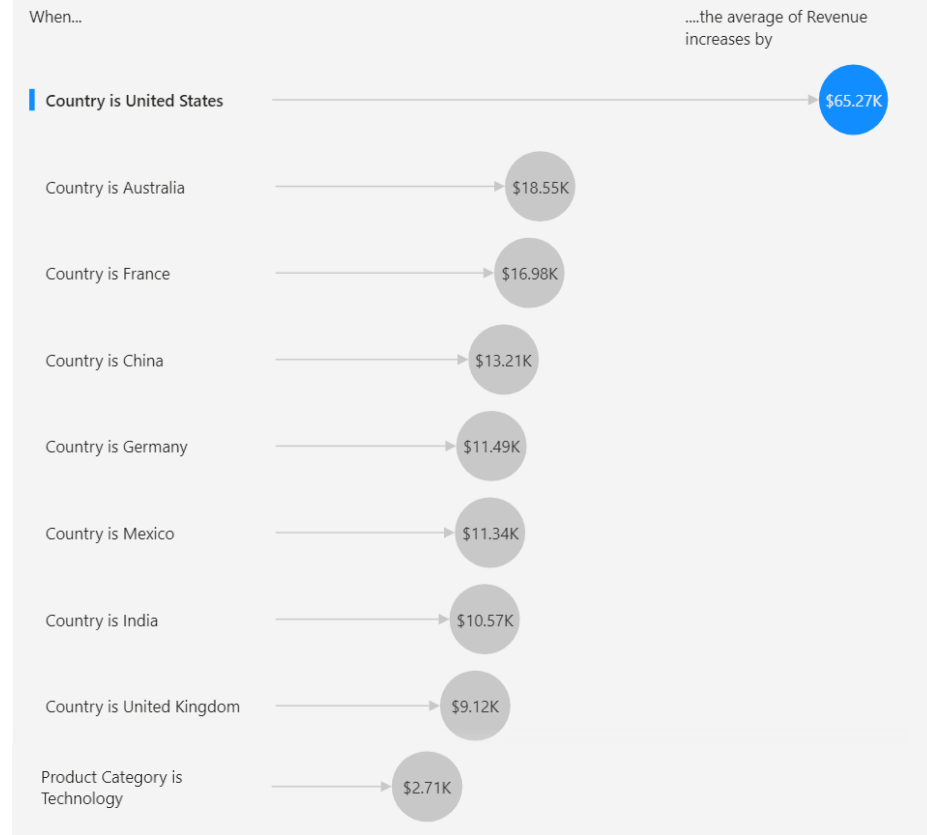
6. Recommendation:

Key influencers:

Key influencers   Top segments

What influences Revenue to   [Decrease ▾]   ?

When...   ....the average of Revenue decreases by

Product Category is Office Supplies   **$3.53K**

Country is Kazakhstan $3.32K

Product Sub-Category is Labels $3.28K

Product Sub-Category is Fasteners $3.24K

Product Sub-Category is Envelopes $2.79K

Product Sub-Category is Supplies $2.50K

Product Sub-Category is Paper $2.33K

Product Sub-Category is Furnishings $1.93K

Average of Delivery Days goes up 1.14 $169.2

Key influencers   Top segments

What influences Revenue to   [Increase ▾]   ?

When...   ....the average of Revenue increases by

Country is United States   **$65.27K**

Country is Australia $18.55K

Country is France $16.98K

Country is China $13.21K

Country is Germany $11.49K

Country is Mexico $11.34K

Country is India $10.57K

Country is United Kingdom $9.12K

Product Category is Technology $2.71K

6. RECOMMENDATIONS

	Recommendations
Customer	Focus on customer segments: **Consumer** & **Corporate** Take special care of **'Can not lost them', 'At risk', 'Promising'** segments
Market & Country	**Market**: Concentrate on **APAC, US & CA, EU** **Country**: Take care of these countries including **Australia, France, China, Germany, Mexico, India, United Kingdom**
Product	**Product category:** Sales priority: **Technology** > **Furniture** > Office supplies. **Product sub-category:** • For the **top 5 most profitable** product sub-categories, strengthen marketing programs, and run online ads. • For the **top 5 most loss product** sub-categories, consider stopping sales.
Ship mode	Improve the **delivery status of late orders** of: The **Standard Class** > **Second Class** > **First Class** shipping method.

THANK
YOU
for
LISTENING TO
MY PRESENTATION

Q&A