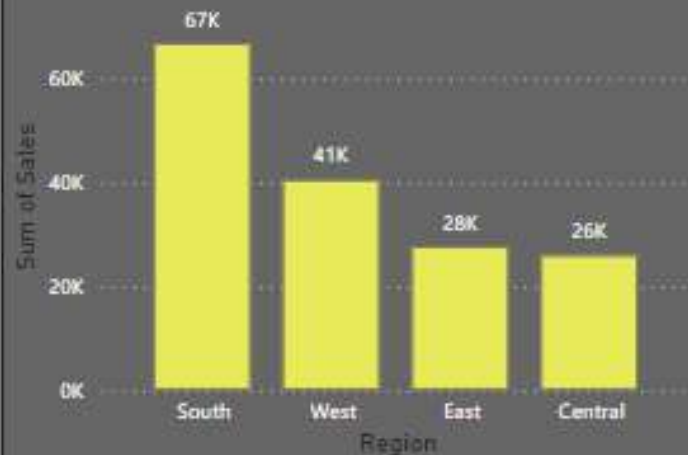


# REAL TIME BUSINESS ANALYTICS



## REGIONAL ANALYSIS

Sales by Region



160.99K

Sum of Sales

15.02K

Sum of Profit

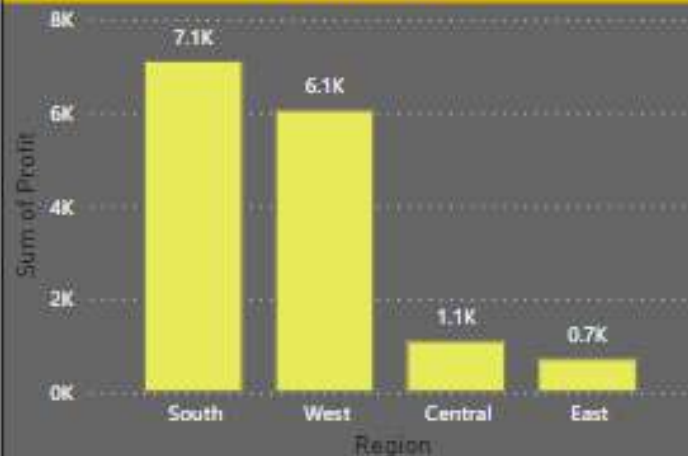
2551

Sum of Quantity

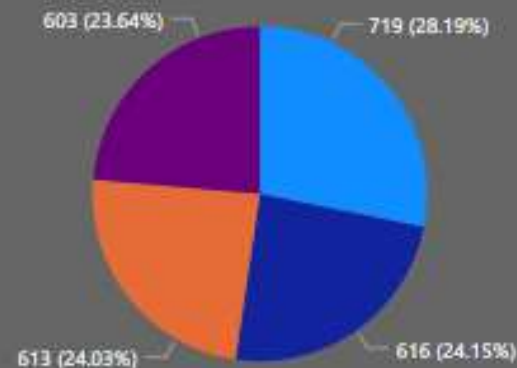
145

Count of City

Profit by Region



Quantity by Region



### Analysis Summary

1. From the Graphs Sales vs Region, we can see that the sales is highest in the South region and lowest in Central region.
2. From the Graph profit vs Region, we can see that profit is highest from South and lowest from East.
3. total sales in the all 6 months is \$160.99 K.
4. Total Profit in all the 6 months is \$15.02 K.
5. only 9.32% of Gross profit is generated of the total sales.

### Questions:

1. Why the sales and profit is High in South and lower in central and east region respectively.

### Hypothesis:

1. Maybe there might be a tough competition from other brand/company.
2. The Supply chain and logistics can be an issue in the East and the central parts.
3. It maybe possible that the distribution channels are not that much good in East and Central compared to the South and the west.
4. Maybe the company is not doing their advertisement in the region where sales is low.
5. Gross profit is low because the product input cost is high due to good quality product, High cost of transport or higher margin by the distributor.

# MONTHLY ANALYSIS

Sales and Sum of Profit by Month

● Sum of Sales ● Sum of Profit



Sales and Target sales by Year

160.99K

Goal: 150000 (+7.32%)

2023

Profit and Target Profit by Year

15.02K

Goal: 20000 (-24.92%)

2023

Quantity and Target Qty by Year

2551

Goal: 2100 (+21.48%)

2023

Analysis Summary

- Highest Sales is in the month of March but lowest Profit is also in March.
- Highest Quantity was sold in March but lowest in February.
- Total Sales exceeded the Target by 7.32%.
- Total Profit was less than the Target Profit by 24.92%.
- Total Quantity sold was more than the target quantity by 21.48%.

## Questions:

- Why the sales was more in March but lowest in February?
- Why Profit is Lowest in March and Highest in June?
- Why the Target profit was not achieved?

## Hypothesis:

- Sales jumped from lowest in February to the highest in March maybe because of launch of a new product or entry into a new market. Sales was lowest in February maybe because of a new entrant in the market.
- But if sales was highest in the month of May, then why lowest profit? This could be because of high Higher discount to attract more consumers for the new product launched or entry into a new market.
- Profit Target was not achieved maybe because of heavy discount in the month of march. May and June increase in

Quantity by Month



Discount by Month



# STATE ANALYSIS

Sales by State



Analysis Summary

- 1 From the Sales vs State graph , we can see that highest sales is form the cities California, Florida & Virginia and lowest sales from the North Western region.
- 2 From the Profit vs State graph, we can see that Highest Profit is from California, Virginia and lowest from the central part.
- 3 From the Discount vs State graph, we can say that highest discount was given cities like the Texas, Illinois and Pennsylvania.

## Question:

- 1 Why the sales is more in cities like California, Florida and Virginia and lowest in the North Western Region?
- 2 Why the profit is more in cities like California, Virginia and lowest from the central part?
- 3 Why Discount is more in the Eastern part?

## Hypothesis:

- 1 Highest sales in cities like California, Florida & Virginia can be because of the Demand of the market, good economies in these regions. Low sales in North western region can be because of issues in supply chain, alignment of consumers to a specific brand, or less engagement through marketing.
- 2 High Profit in California, Virginia can be because of the same above reasons. Low Profit in Central region

Profit by State



Discount by State



# CITY ANALYSIS

## Alabama

City	Sum of Profit	Sum of Sales	%GT Sum of Discount	Sum of Quantity
Seattle	1,782.28	8,021.47	2.17%	100
Virginia Beach	1,504.95	3,545.78	0.00%	17
Henderson	1,394.27	5,362.43	0.00%	48
Los Angeles	1,348.42	8,852.00	3.89%	189
Lakeville	1,262.87	3,995.55	0.00%	55
San Francisco	999.43	7,246.63	1.43%	90
Springfield	924.46	4,219.84	0.59%	29
Burbank	764.53	3,247.16	0.20%	13
Chesapeake	562.97	2,969.61	0.00%	25
Lawrence	512.90	1,803.03	0.30%	28
Lakewood	463.07	1,661.37	0.00%	18
Jonesboro	437.25	1,859.40	0.00%	27
Detroit	418.09	1,239.98	0.10%	27
Columbia	348.58	1,643.09	0.00%	27
Athens	346.62	1,233.45	0.00%	18
Decatur	345.48	1,708.75	1.38%	33
Richmond	333.66	1,034.78	0.00%	35
Bossier City	326.57	1,287.26	0.00%	20
Louisville	316.81	1,197.70	0.20%	16
Jackson	311.09	971.79	0.00%	27
San Gabriel	290.90	2,061.01	0.20%	13
Total	15,015.30	1,60,986.56	100.00%	2551

15,015.30	2551	1,60,986.56	101.42
Sum of Profit	Sum of Quantity	Sum of Sales	Sum of Discount

### Analysis Summary

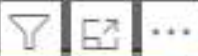
In the Table plotted, We have the Profit, Sales, Discount and Quantity mentioned for each city.

Highest Profit: Seattle

Highest Sales: Jacksonville

Highest Discount: Philadelphia

Highest Quantity: Los Angeles



### Sum of Sales by City



### Sum of Profit by City



# SEGMENT ANALYSIS

Profit and Sum of Sales by Month and Segment



Analysis Summary

- In the sales & profit vs Segment graph and the pie charts below, we can say that the Highest profit and sales was achieved by the Consumer Segment in the month of June. Lowest Sales was by the Corporate segment and lowest profit by the Home office segment.
- Home offices gave loss of \$0.4 K in the month of March.
- Highest Quantity of product sold were from the Consumer segment.

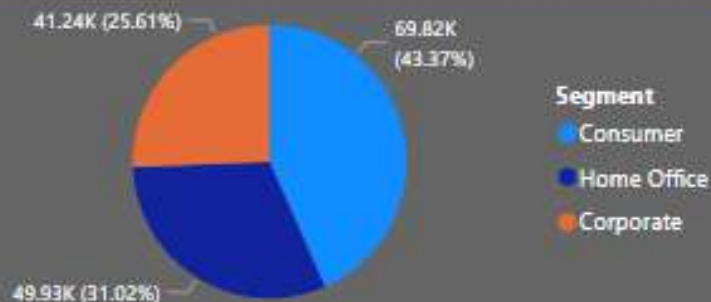
## Questions:

- Why the Highest profit was from Consumer segment in the month of June?
- Why there was a loss in the home office segment in the month of March.
- Why the highest quantity of product sold was from the consumer segment?

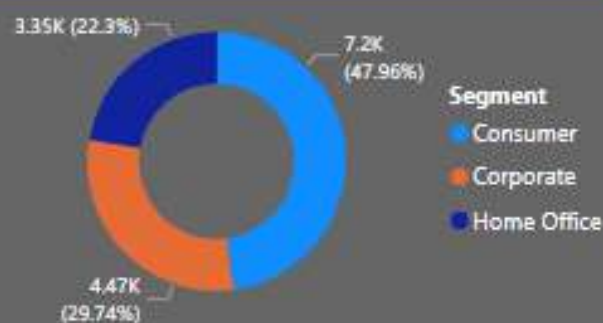
## Hypothesis:

- Highest profit from the consumer segment in the month of June would be because consumer products must be having very high margins, a different marketing campaign or a new product launch.
- There was a loss in the home office segment in the month of March may be because since it is the last fiscal month, hence to clear off the remaining stock, high discount on the products.
- Highest quantity of products sold was from the Consumer segment may be because of high demand in this segment, high level marketing, etc.

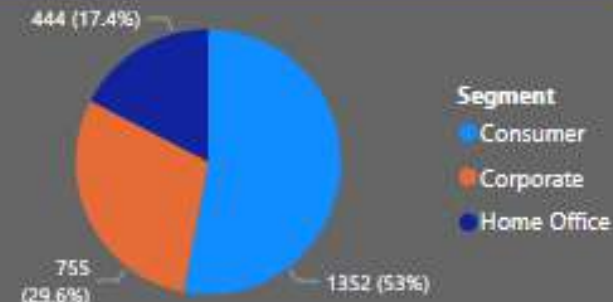
Sales by Segment



Profit by Segment

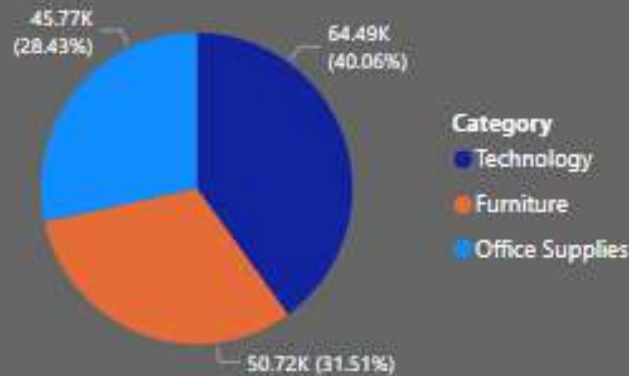


Quantity by Segment

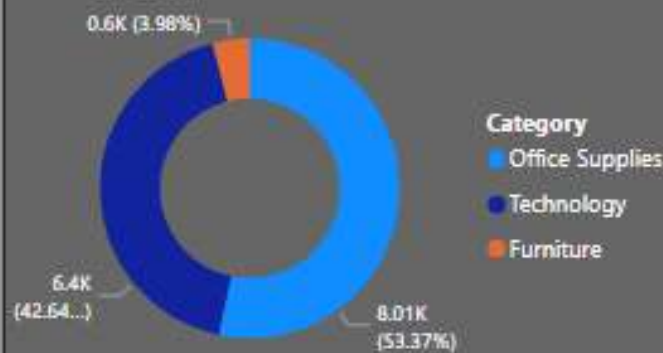


# CATEGORY ANALYSIS

## Sum of Sales by Category



## Profit by Category



## Analysis Summary

1. From the graph sales vs category, Highest sales is from the technology category, and lowest from Office supply.
2. From the graph Profit vs category, Highest profit is from the office supply and lowest from the furniture.
3. From the graph Discount vs Category and region, We can say that the highest discount was given on Office supply and in the Central region and lowest in the Technology in South and west.

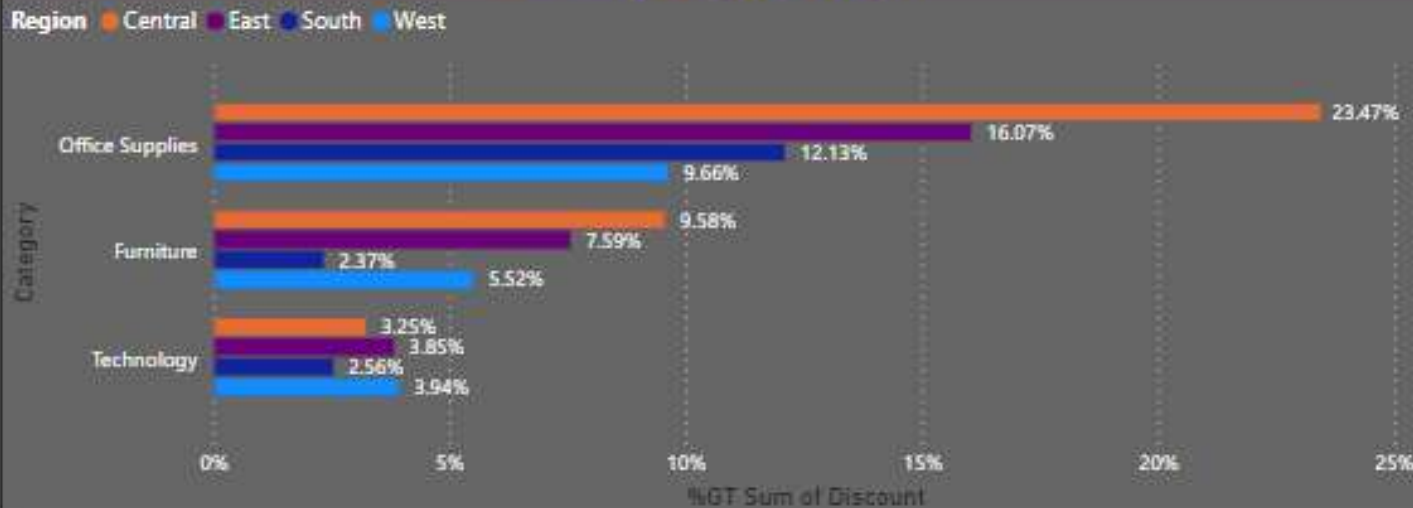
### Questions:

1. Why Sales is High in Tech and low in Office supply.
2. Why Profit is high from Office supply and lowest in Furniture.
3. Why a huge discount is given on Office supply?

### Hypothesis:

1. Demand for the tech Product must be high and low for office supply.
2. There might be low Competition for the tech product.
3. Sales of office supply is low but it is the most profitable, this could be because of High price and premium product, which suits only a certain market consumers. This could also be because of higher cost price which the company sells to the distributor.
4. Profit in Furniture category is low because maybe the input cost would be high. There would be a good competitor in the market hence we have to sell it for low price.
5. Office supply has the highest discount because since it's the highest profitable category, and to solve the issue of low sales, giving high discount can be a possibility.

## Discount by Category and Region



# SUB- CATEGORY ANALYSIS

Sum of Profit by Sub-Category



Analysis Summary

1. From the Profit vs. Sub-category visual, we can say that the highest profit came from the Phones category and lowest from Fastners.
2. From the Sales vs. Sub-Category visual, we can say that Highest sales was from the Phones and lowest from Fastners.
3. Here, Profit and sales, both are proportional.
4. From the Quantity vs Sub-category graph, we can say that the highest quantity was of Binders and Lowest from Copiers.

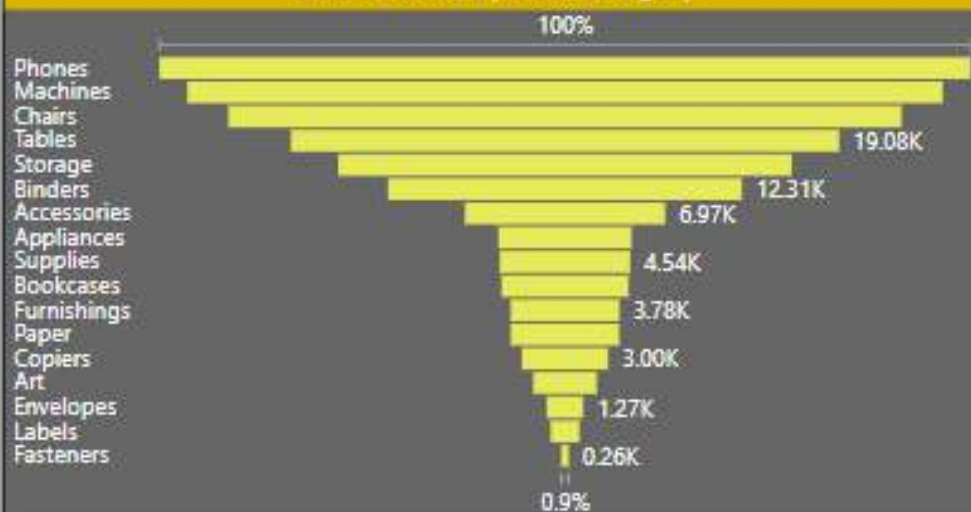
## Questions:

1. Why profit is high from Phones and lowest from Fastners?
2. Why Sales is high from Phones and lowest from Fastners?
3. Why Quantity is High in Binders and lowest in Copiers?

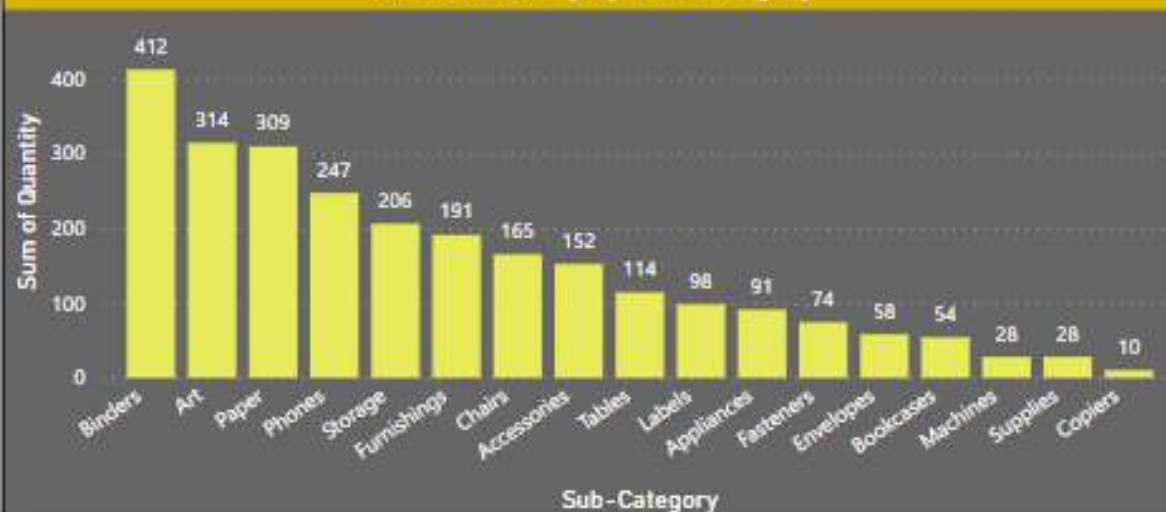
## Hypothesis:

1. Profit and sales from the Phones is high maybe because we have an competitive advantage in the market, good marketing strategy, technologically advanced products and user friendly User Interface.
2. Lowest profit and sales is from Fastners may be because fastners category is not that much given focus compared to other categories like in terms of updating the product, poor quality or high price compared to the market competitors.
3. Highest quantity is from Binders may be because of high market demand, Good quality product, competitive advantage.

Sum of Sales by Sub-Category



Sum of Quantity by Sub-Category



PARAMETER	RESULT	REASON
Best performing Month	June	Stability in the trend since March, Decent discounts and Best performance by Phones. ( Highest sales and profit in entire 6 months)
least performing Month	February	Maybe a new competitor had entered the market or some internal factors of the company or any external factor which affected the whole industry, for example a trade union strike.
Best region	South	Highest sales in South can be because of the Demand of the market, good economies in these regions
Best State	California	Demand of the market, good economies and high purchasing power of the consumer in these regions
Best segment	Consumer	consumer products must be having high demand in this segment, very high margins, a different marketing campaign or a new product launch.
Best Category	Office supply	Sales of office supply is low but it is the most profitable, this could be because of High price and premium product, which suits only a certain market consumers. This could also because of Higher cost price (margin) at which the company sells to the distributor.
Best Sub-category	Phones	Profit and sales from the Phones is high maybe because we have an competitive advantage in the market, good marketing strategy, technologically advanced products and user friendly User Interface.