



Presentation to the Regional Sales Director of the Americas

By Jose G. Lora

Meeting Agenda:

- Background information on the project
- Framing:
 - Problem statement
 - The Hypotheses created
- Data used
 - Wrangle and Prepare
- Analysis
- Recommendations



Background information on the project:

- I was asked to use the Data Analytics Workflow and practice a combination of Excel and SQL skills to analyze the Superstore product and customer segments to understand which are best performing and why.



Framing:

- The Regional Sales Director would like to know which product segment and which customer segment in the Americas region were performing the best and why going into the Pandemic. Conduct an analysis to identify the best-performing product segment and customer segment, then make data-driven recommendations based on that analysis.

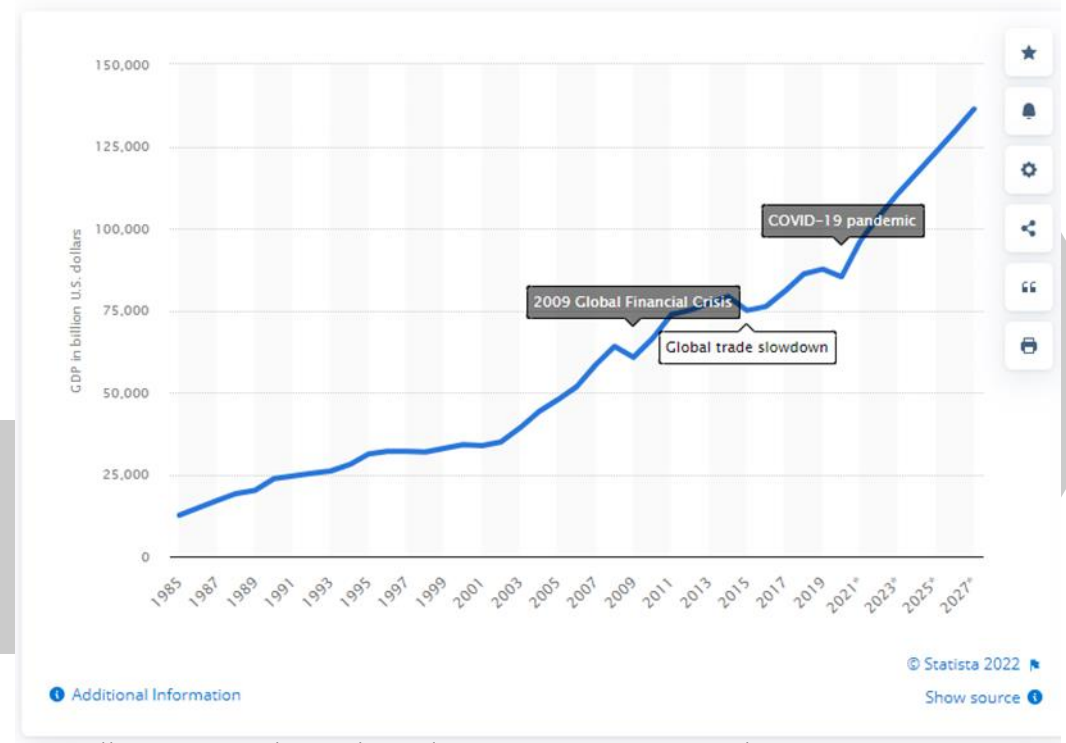
Hypothesis:

My hypotheses is that since global GDP was rising during the time of the data set, in addition to growing sales year over year, the best performing product segment and customer segment were technology and corporate.

If we examine all the product categories and customer segments, we might identify that some segments are more profitable that others.

Economy & Politics > International

Global gross domestic product (GDP) at current prices from
(in billion U.S. dollars)



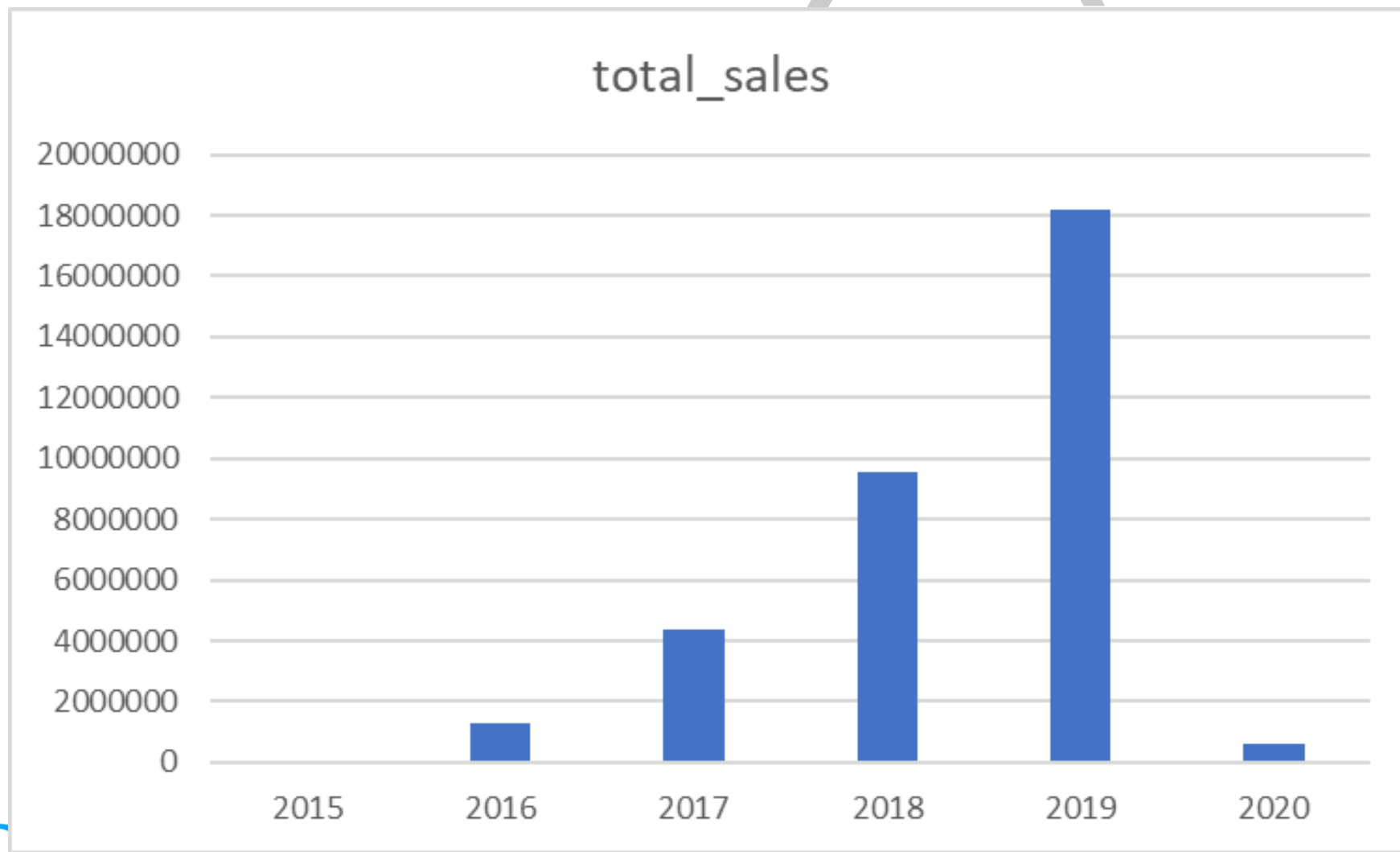
*<https://www.statista.com/statistics/268750/global-gross-domestic-product-gdp/>

Wrangle and Prepare:

1. Decided to join all the tables and have them radially available to me.
2. Started with orders and Left Joined: regions, products, customers, & returns.
3. Columns selected were: order_id, order_date, sales, quantity, profit, discount, customer name, segment, category, sub_category, return_quantity,

```
SELECT DISTINCT o.order_id, o.Order_date, o.sales, o.quantity, o.profit, o.discount,  
                c.customer_name, c.segment, p.category, p.sub_category, r2.return_quantity  
from orders o  
  Left join regions r on o.region_id = r.region_id  
  Left join products p on o.product_id = p.product_id  
  Left join customers c on o.customer_id = c.customer_id  
  Left join returns r2 on o.order_id = r2.order_id  
WHERE region = 'Americas' AND return_quantity IS null;
```

Wrangle and Prepare:



```

SELECT
p.category, SUM(sales) as Total_Sales
FROM ORDERS o
      Left join products p on o.product_id = p.product_id
      Left join returns r2 on o.order_id = r2.order_id
      Left join regions r on o.region_id = r.region_id
where r.region = 'Americas' AND return_quantity IS null
AND p.category = 'Technology' AND EXTRACT(year FROM order_date) != '2015'
AND EXTRACT(year FROM order_date) != '2020'
Group by p.category

UNION

SELECT
p.category, SUM(sales) as Total_Sales
FROM ORDERS o
      Left join products p on o.product_id = p.product_id
      Left join returns r2 on o.order_id = r2.order_id
      Left join regions r on o.region_id = r.region_id
where r.region = 'Americas' AND return_quantity IS null
AND p.category = 'Office Supplies' AND EXTRACT(year FROM order_date) != '2015'
AND EXTRACT(year FROM order_date) != '2020'
Group by p.category

UNION

SELECT
p.category, SUM(sales) as Total_Sales
FROM ORDERS o
      Left join products p on o.product_id = p.product_id
      Left join returns r2 on o.order_id = r2.order_id
      Left join regions r on o.region_id = r.region_id
where r.region = 'Americas' AND return_quantity IS null
AND p.category = 'Furniture' AND EXTRACT(year FROM order_date) != '2015'
AND EXTRACT(year FROM order_date) != '2020'
Group by p.category;




```

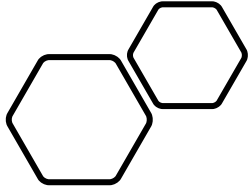
Wrangle and Prepare:

	Data Output	Explain	Messages	Notifications
	category text	total_sales numeric		
1	Furniture	28261581.48		
2	Office Supplies	26657683.03		
3	Technology	33319795.52		

Wrangle and Prepare:

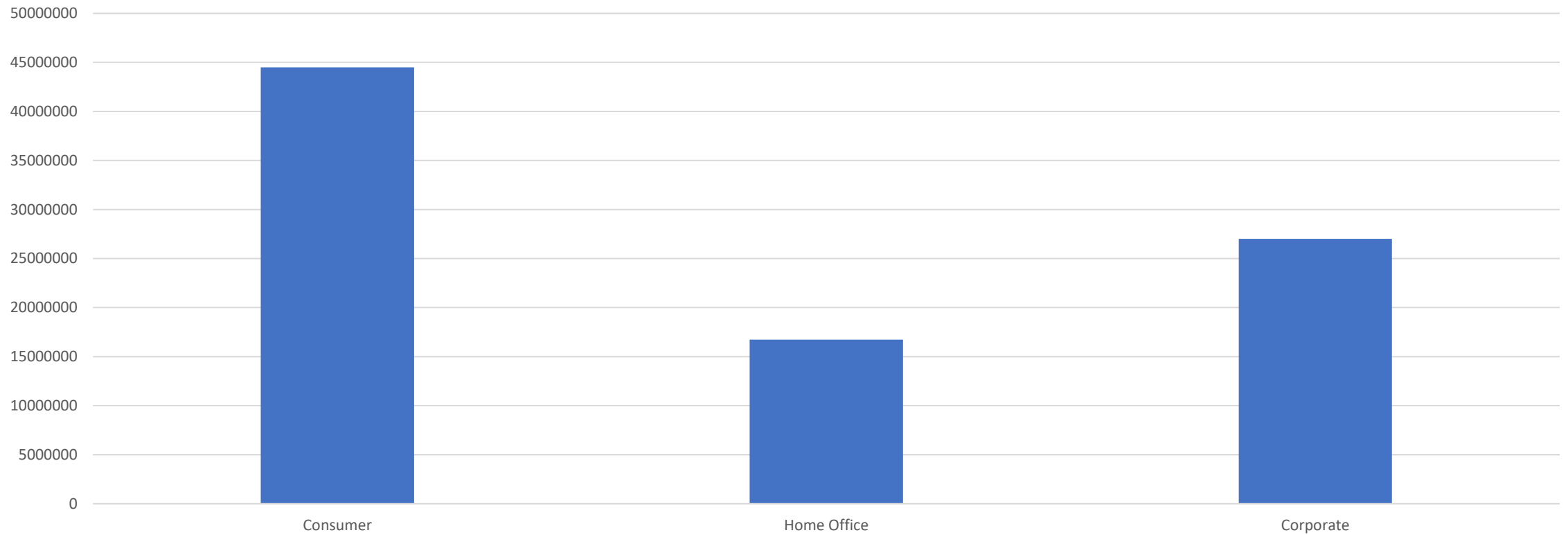
```
SELECT
  p.category, SUM(sales) as Total_Sales
FROM ORDERS o
Left join products p on o.product_id = p.product_id
Left join returns r2 on o.order_id = r2.order_id
Left join regions r on o.region_id = r.region_id
where r.region = 'Americas' AND return_quantity IS null
AND EXTRACT(year FROM order_date) != '2015'
AND EXTRACT(year FROM order_date) != '2020'
Group by p.category;
```

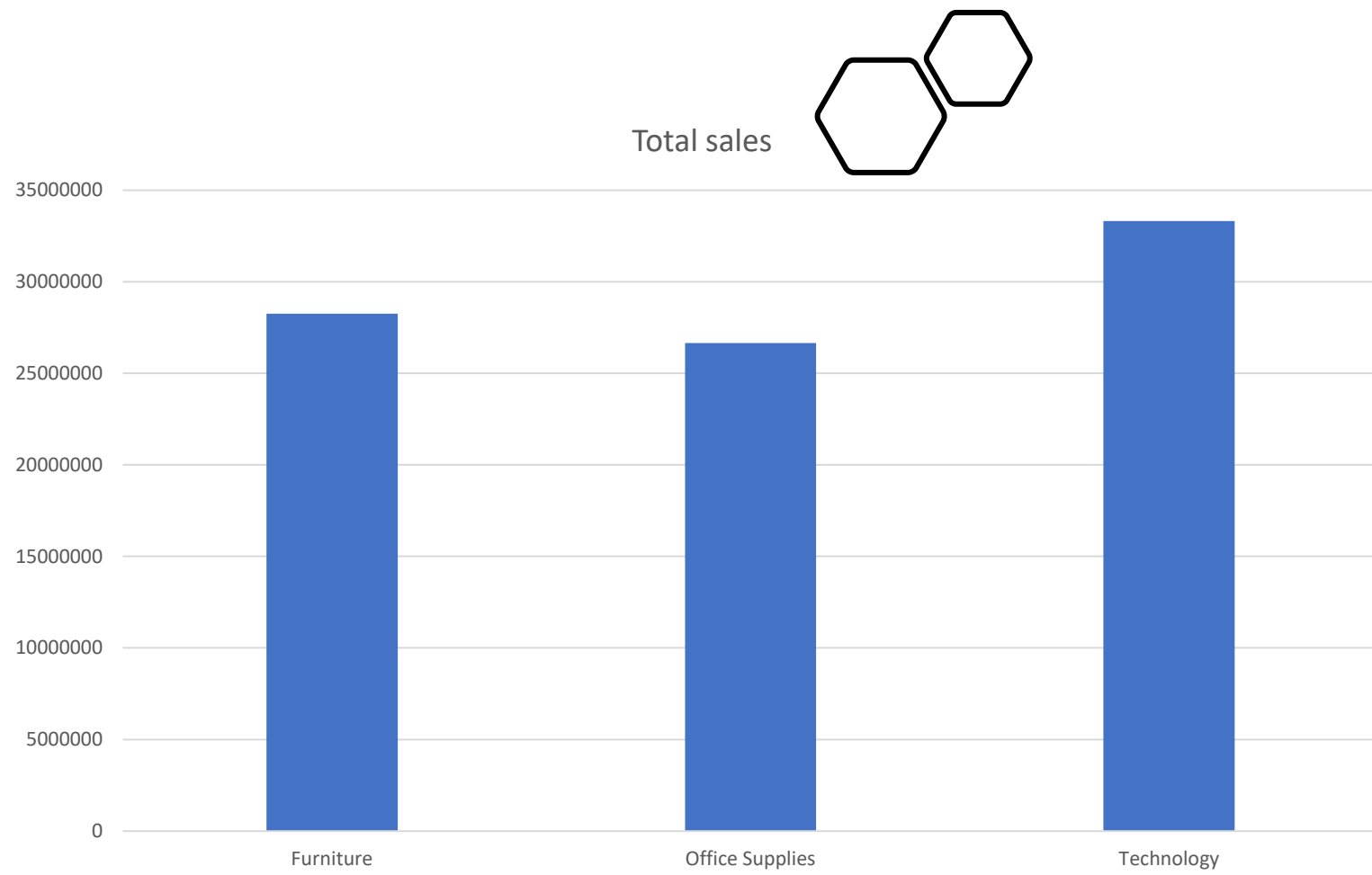
	Data Output	Explain	Messages	Notifications
	 category text		total_sales numeric	
1	Furniture		28261581.48	
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Analyze

Total Sales





Analyze

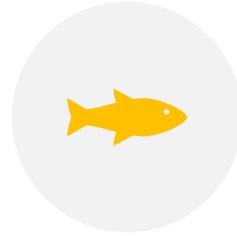
Recommendations



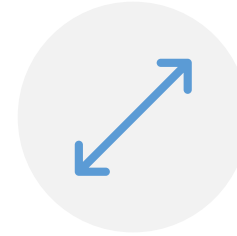
WITH THE CHANGE THAT THE PANDEMIC BROUGHT TO WORKING FROM HOME, THE CATEGORY OF HOME OFFICE WOULD BE A GOOD CATEGORY TO TRY AND BUILD UP.



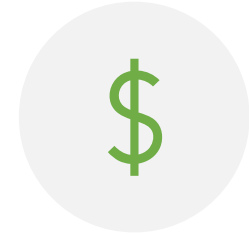
THE HOME OFFICE CATEGORY, IS CURRENTLY THE LEAST GROSSING CATEGORY.



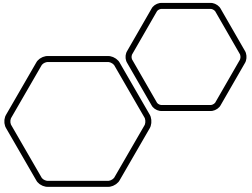
CORPORATE CLIENTS COULD PRESENT OPPORTUNITIES FROM THE "BIG FISH" VARIETY.



TECHNOLOGY IS SUCH A BIG PIECE OF THE WORLD THAT WE LIVE IN TODAY, I RECOMMEND TO CONTINUE TO MAKE THIS SEGMENT A PRIORITY.



MORE RESEARCH WILL NEED TO BE DONE TO UNDERSTAND WHY SALES DECLINED IN JANUARY 2020. IF IT HAD BEEN MARCH OR APRIL, WE COULD HAVE ATTRIBUTED IT TO THE PANDEMIC.



Questions?