

TECHMART

A RETAIL COMPANY IN THE UNITED STATES OF AMERICA

FROM ADEBIYI ABIDEMI PAUL | DATA ANALYST

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BUSINESS QUESTION

A retail company, "TechMart," is analyzing its sales data to understand customer purchasing behavior, product performance, and regional sales trends. Your role is to analyze the dataset and provide actionable insights.

PROJECT OBJECTIVES

1. Customer Analysis: - Identify the top 5 cities with the highest number of unique customers.
 - Determine the age group that spends the most on average.
2. Product Analysis: - List the top 5 most frequently purchased products.
 - Calculate the total sales for each product category.
3. Sales Performance: - Calculate the total monthly sales for the year.
 - Identify the store generating the highest revenue.
4. Regional Trends: - Compare sales across regions (e.g., North, South, East, West).
 - Identify the region with the highest average sale value.
5. Customer Loyalty: - Find customers who make purchases every month.
 - Calculate the percentage of repeat customers.

REPORTS ON THE ANALYSIS CARRIED OUT

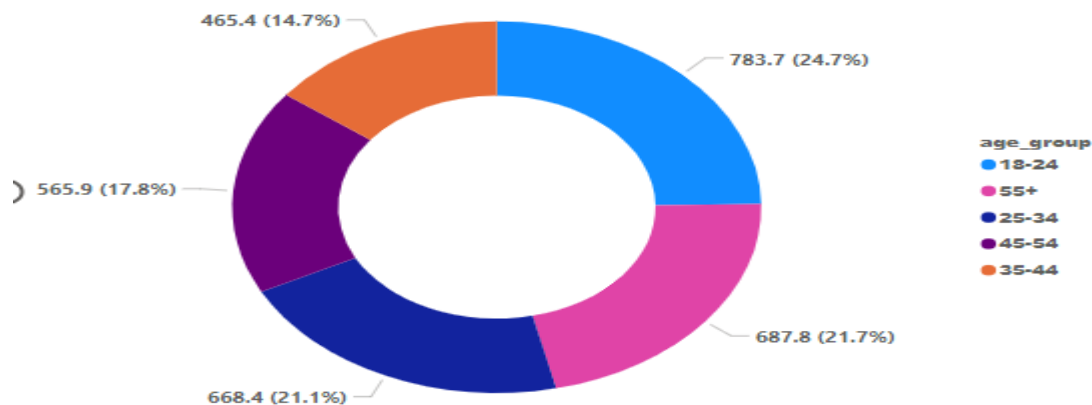
1. **Data Cleaning:** the data is clean and has no null value. Therefore, there is no need for us to replace any value. There is no form of variation in the city, products, and product category. They're all distinctly okay. There's no duplicate in the data set.
2. **CUSTOMER ANALYSIS**
 - Identify the top 5 cities with the highest number of unique customers.



The top 5 cities with the highest number of unique customers include New York (24), Chicago (23), Houston (23), Phoenix (19) and Los Angeles (11). Though the number of customers in Los Angeles is low compared to the other top 5, they made more sales than the rest (42846.80).

- Determine the age group that spends the most on average.

Age group spending the most on average



It shows that the 18-24 age group spends more on average by 783.7, which is 24.7% of the total average spending. But the 45-54 age group tops the list on total spending (92237.82), which is 29.42%. This shows that only a few people aged 18-24 made purchases in the company, and they spent more, which made their average spending high.

3. PRODUCTS ANALYSIS

- List the top 5 most frequently purchased products.

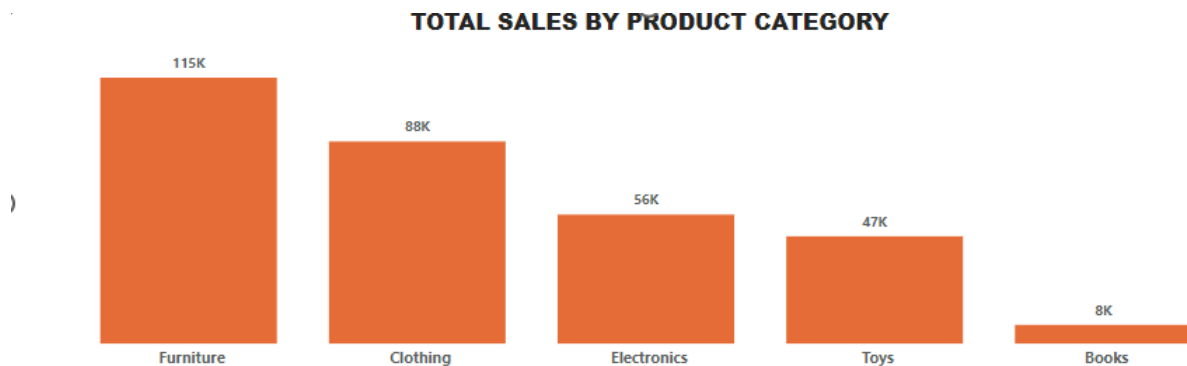
Top 5 most frequently purchased products



The top 5 most frequently purchased products are product2 from the furniture category (37k), product5 from the toy category (35k), product20 from furniture (35k), product1 from furniture (27k), and product11 from clothing. This shows that people are going for furniture more than any other product category. There is also an element of furniture that constitutes the

least purchased product, which is product17. The product should be looked into and check what could have caused the low patronage.

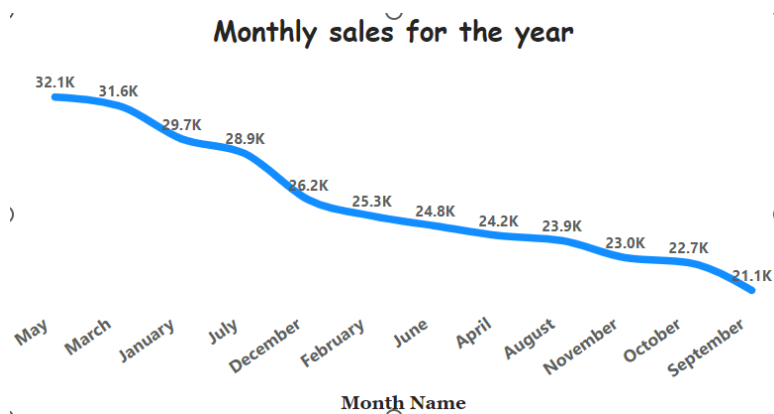
- Calculate the total sales for each product category



From here we discover that product category books have the least sales (8k) in the year, which is not good at all. We also discovered that the book category has only two products, whereas others have several varieties for people to choose from. Therefore, it could be because people were unable to choose, which made them leave the product.

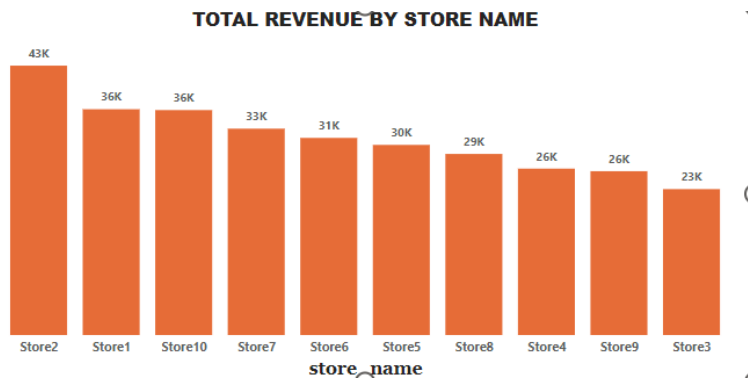
4. SALES PERFORMANCE

- Calculate the total monthly sales for the year.



The chart above shows that we have more sales in the months of May (32.1k), March (31.6k), January (29.7k), July (28.9k), and December (26.2). It means that our products are affected by seasonal trends.

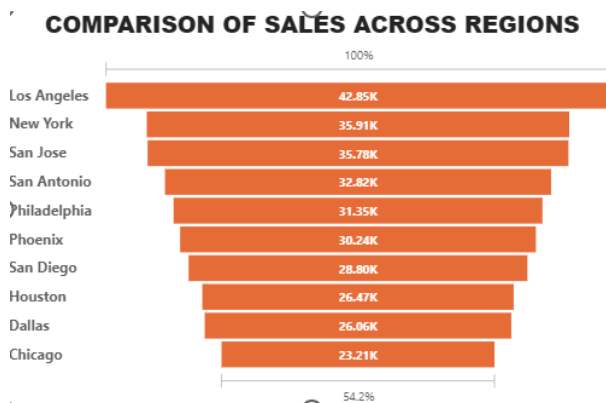
- Identify the store generating the highest revenue.



Store2 from Los Angeles has the highest sales; no wonder Los Angeles generated more revenue than other cities. This shows that there is a strong correlation between city, storename, and revenue.

5. REGIONAL ANALYSIS

- Compare sales across regions (e.g., North, South, East, West).



From the regions above, we discovered that Los Angeles generated more revenues than other regions, followed by New York and San Jose. We also discovered that some regions don't have customers' identities at all, but their revenue was recorded. E.g San Jose, San Antonio, Philadelphia, San Diego, and Dallas. This means no record of any customer.

- Identify the region with the highest average sale value.

	region	avg_sale_value
▶	Dallas	789.643333

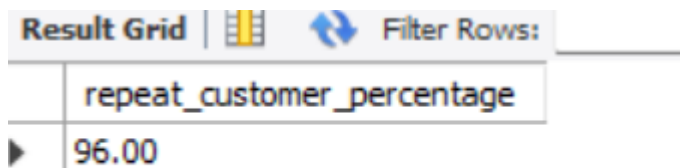
Even though Dallas is the 2nd least region with total revenue, it is the region with the highest average sale value. This means that only a few people patronized them yet they made good sales.



6. CUSTOMERS LOYALTY

- **Find customers who make purchases every month.**

After running a query to check the customers who make purchases every month, we discovered that no customers made monthly purchases. We need more follow-up on our customers and feedback from them, especially about our products and services.

- **Calculate the percentage of repeat customers.**



Result Grid   Filter Rows: _____	
	repeat_customer_percentage
▶	96.00

There is 96% of repeated customers, which is a nice one from the company.

Thank you so much, let me know if you need any other details.

Yours Faithfully

ADEBIYI ABIDEMI PAUL

Data Analyst