

Kultra Mega Stores Inventory [KMS] Sales Analysis (using MySQL)

Executive Summary

This project explores sales performance for Kultra Mega Stores using MySQL to derive insights from transactional data between 2009 and 2012. The analysis covered customer value, product category performance, shipping efficiency, and regional trends to support strategic business decisions in the Abuja division.

Project Objective

Kultra Mega Stores (KMS), headquartered in Lagos, specialises in office supplies and furniture. Its customer base includes individual consumers, small businesses (retail), and large corporate clients (wholesale) across Lagos, Nigeria. The Business Manager wants me as a Business Intelligence Analyst to analyze the dataset that has been provided containing order data from 2009 to 2012 and present key insights and findings that will support the Abuja division of KMS.

Dataset Used

[..\KMS Sql Case Study.csv](#)

[..\Order Status.csv](#)

Questions (KPIs)

Case Scenario I

1. Which product category had the highest sales?
2. What are the Top 3 and Bottom 3 regions in terms of sales?
3. What were the total sales of appliances in Ontario?
4. Advise the management of KMS on what to do to increase the revenue from the bottom 10 customers
5. KMS incurred the most shipping cost using which shipping method?

Case Scenario II

6. Who are the most valuable customers, and what products or services do they typically purchase?
7. Which small business customer had the highest sales?

8. Which Corporate Customer placed the most number of orders in 2009 – 2012?
9. Which consumer customer was the most profitable one?
10. Which customer returned items, and what segment do they belong to?
11. If the delivery truck is the most economical but the slowest shipping method and Express Air is the fastest but the most expensive one, do you think the company appropriately spent shipping costs based on the Order Priority? Explain your answer

Process

- Verify the data for anomalies and any missing values, I noticed some values were missing in the profit base margin column, but I left the column that way since it was not necessarily required in the analysis.
- Cleaned the data with respect to data type, data format, and values and also made sure for data consistency.
- Using MySQL DBMS, I created a new schema (database) and named it KMS_db, after which I imported the cleaned dataset into the database.
- Started writing queries to answer each questions asked and exported each results.

SQL Queries and Their Results

Case Scenario I

1. Which product category had the highest sales?

SQL Query:

```
#1
#Product Category with the Highest Sales
SELECT
    `Product Category`, SUM(Sales) as `Total Sales`
FROM
    `kms sql case study`
GROUP BY `Product Category`
ORDER BY `Total Sales` DESC limit 1;
```

Result:

[Product Category with the Highest Sales.csv](#)

2. What are the Top 3 and Bottom 3 regions in terms of sales?

SQL Query:

#2

#Top 3 Regions based on Sales

SELECT

 `Region`, SUM(Sales) as `Total Sales`

FROM

 `kms sql case study`

GROUP BY `Region`

ORDER BY `Total Sales` DESC limit 3;

#Bottom 3 Regions based on Sales

SELECT

 `Region`, SUM(Sales) as `Total Sales`

FROM

 `kms sql case study`

GROUP BY `Region`

ORDER BY `Total Sales` ASC limit 3;

Results:

[Top 3 Regions based on Sales.csv](#)

[Bottom 3 Regions based on Sales.csv](#)

3. What were the total sales of appliances in Ontario?

SQL Query:

#3

#Total Sales of Appliances in Ontario

SELECT

 `Region`, `Product Sub-Category`, SUM(Sales) as `Total Sales`

FROM

 `kms sql case study`

WHERE

 `Region` = 'Ontario' and `Product Sub-Category` = 'Appliances';

Results:

[Total Sales of Appliances in Ontario.csv](#)

4. Advise the management of KMS on what to do to increase the revenue from the bottom 10 customers

SQL Query:

#4

#Revenue from the Bottom 10 Customers

SELECT

 `Customer Name`, `Region`, `Customer Segment`, `Order Quantity`, `Discount`,
SUM(Sales) AS `Total Sales`

FROM

 `kms sql case study`

GROUP BY `Customer Name`, `Region`, `Customer Segment`, `Order Quantity`,
`Discount`

ORDER BY `Total Sales` ASC LIMIT 10;

Results:

[Revenue from the Bottom 10 Customers.csv](#)

Insight:

The table highlights the bottom 20 customers based on revenue, along with their region, customer segment, total order quantity, and discount. Since these customers are spread across different regions and segments, it's clear that their low revenue isn't tied to location or customer type — it's simply because their order quantities are very low. This shows that the issue is more about individual buying behavior than where they're from or what segment they belong to.

Recommendation:

"The bottom 10 customers aren't spending much right now, but they could still be valuable if KMS puts in the work. What the company should do is reach out to them directly — maybe offer special deals, loyalty rewards, or product bundles they'd actually want. With the right strategy, these customers can start buying more. KMS should also check if there's a reason they haven't been active — maybe something went wrong or they didn't find what they needed."

5. KMS incurred the most shipping cost using which shipping method?

SQL Query:

#5

#Shipping Mode with the Most Shipping Cost

SELECT

 `Ship Mode`, SUM(`Shipping Cost`) as `Total Shipping Cost`

FROM

 `kms sql case study`

GROUP BY `Ship Mode`

ORDER BY `Total Shipping Cost` DESC;

Result:

[Shipping Mode with the Most Shipping Cost.csv](#)

6. Who are the most valuable customers, and what products or services do they typically purchase?

SQL Query:

```
SELECT
    k.`Customer Name`,
    k.`Product Category`,
    k.`Product Sub-Category`,
    SUM(k.`Sales`) AS Category_Sales
FROM
    `kms sql case study` k
JOIN (
    SELECT `Customer Name`
    FROM `kms sql case study`
    GROUP BY `Customer Name`
    ORDER BY SUM(Sales) DESC
    LIMIT 10
) AS top_customers
ON k.`Customer Name` = top_customers.`Customer Name`
GROUP BY
    k.`Customer Name`, k.`Product Category`, k.`Product Sub-Category`
ORDER BY
    Category_Sales DESC;
```

This query gives the list of 10 most valuable customers, with the Product Category and Product Sub-Category ordered by the sales, from the highest to the lowest.

Result:

[Top 10 Most Valuable Customers.csv](#)

7. Which small business customer had the highest sales?

SQL Query:

```
#7
#Small Business Customer with the Highest Sales
SELECT
    `Customer Name`, `Customer Segment`, SUM(Sales) AS `Total Sales`
FROM
    `kms sql case study`
WHERE `Customer Segment` = 'Small Business'
GROUP BY `Customer Name`
ORDER BY `Total Sales` DESC limit 1;
```

Result:

[Small Business Customer with the Highest Sales.csv](#)

8. Which Corporate Customer placed the most number of orders in 2009 – 2012?

SQL Query:

#8

#Corporate Business Customer with the Most Order

SELECT

`Customer Name`, `Customer Segment`, SUM(`Order Quantity`) AS `Total Order Made`

FROM

`kms sql case study`

WHERE `Customer Segment` = 'Corporate'

GROUP BY `Customer Name`

ORDER BY `Total Order Made` DESC limit 1;

Result:

[Corporate Customer with the Most Order.csv](#)

9. Which consumer customer was the most profitable one?

SQL Query:

#9

#Consumer Customer with the Most Profit

SELECT

`Customer Name`, `Customer Segment`, SUM(`Profit`) AS `Total Profit`

FROM

`kms sql case study`

WHERE `Customer Segment` = 'Consumer'

GROUP BY `Customer Name`

ORDER BY `Total Profit` DESC limit 1;

Result:

[Consumer Customer with the Most Profit.csv](#)

10. Which customer returned items, and what segment do they belong to?

For this questions, I imported the order_status dataset in to database, then joined the `order_status` and the `kms sql case study` table using the 'Order ID'

SQL Query:

#10

#Customer that Returned Items

```

SELECT
    os.`Order ID`,
    `Customer Name`,
    `Customer Segment`,
    `Order Date`,
    os.`Status`
FROM
    `kms sql case study` AS kms
RIGHT JOIN `order_status` AS os
USING(`Order ID`);

```

Result:

[Customers that Returned Items.csv](#)

11. If the delivery truck is the most economical but the slowest shipping method and Express Air is the fastest but the most expensive one, do you think the company appropriately spent shipping costs based on the Order Priority? Explain your answer

Insight

Since, our assumption is that Delivery Truck is cheaper but slower, and Express Air is faster but expensive, then it is expected that only orders that are under the critical or high priority should be shipped with Express Air since speed matters, and conversely orders that are not critical or high priorities can be shipped with Delivery Truck to save cost. If this is not the case for KMS Company, shipping costs are being spent inefficiently.

SQL Query:

#11

#Orders based on Order Priority and Ship Mode

```

SELECT
    reg.`Order Priority`,
    `Cost for Regular Air`,
    `Order_Count for Regular Air`,
    `Cost for Express Air`,
    `Order_Count for Express Air`,
    `Cost for Delivery Truck`,
    `Order_Count for Delivery Truck`
FROM (
    SELECT
        `Order Priority`, SUM(`Shipping Cost`) AS `Cost for Regular Air`, COUNT(*)
    AS `Order_Count for Regular Air`
    FROM
        `kms sql case study`

```

```

        WHERE `Ship Mode` = 'Regular Air'
        GROUP BY `Order Priority`) AS reg
JOIN (
    SELECT
        `Order Priority`, SUM(`Shipping Cost`) AS `Cost for Express Air`, COUNT(*)
    AS `Order_Count for Express Air`
    FROM
        `kms sql case study`
    WHERE `Ship Mode` = 'Express Air'
    GROUP BY `Order Priority`) AS exp
ON reg.`Order Priority` = exp.`Order Priority`
JOIN (
    SELECT
        `Order Priority`, SUM(`Shipping Cost`) AS `Cost for Delivery Truck`,
    COUNT(*) AS `Order_Count for Delivery Truck`
    FROM
        `kms sql case study`
    WHERE `Ship Mode` = 'Delivery Truck'
    GROUP BY `Order Priority`) AS del
ON exp.`Order Priority` = del.`Order Priority`;

```

Result:

[Orders based on Order Priority and Ship Mode.csv](#)

Final Conclusion

The sales analysis conducted on Kultra Mega Stores' Abuja division from 2009 to 2012 reveals key insights across customer behavior, product performance, and operational efficiency. High-revenue customers are mainly concentrated in categories like office furniture and storage solutions, showing clear opportunities for bundling and upselling. Meanwhile, the bottom-performing customers, though scattered across regions and segments, exhibit low order volumes — suggesting that engagement and purchasing habits, not customer type or location, are the core issues.

Regional sales performance highlights clear top and bottom performers, and further attention should be paid to underperforming zones to uncover specific challenges or missed opportunities. Additionally, an evaluation of shipping methods versus order priority revealed potential cost inefficiencies — with high-cost shipping being used for low-priority orders — which should be optimized to reduce unnecessary expenses.

Overall, strategic actions such as customer re-engagement, personalized marketing, better shipping alignment, and continued performance monitoring can help drive both revenue growth and operational efficiency at Kultra Mega Stores moving forward.