ATLIQ HARDWARE
SALES ANALYTICS PROJECT

Introduction
AtliQ Hardware is a company which supplies computer hardware and peripherals to many of the clients, they have a client called Excel stores and normal stores across India, they supply all these equipments to them

Purpose
To unlock sales insights that are not visible before for sales team for decision support & automate them to reduced manual time spent in data gathering.

Stakholders
- Sales Director
- Marketing team
- Customer Service Team
- IT

Success Criteria
- Dashboard(s) uncovering sales order insights with latest data available
- Sales team able to take better decisions & prove 10% cost savings of total spend
- Sales Analysts stop data gathering manually in order to save 20% of their business time and reinvest it value added activity
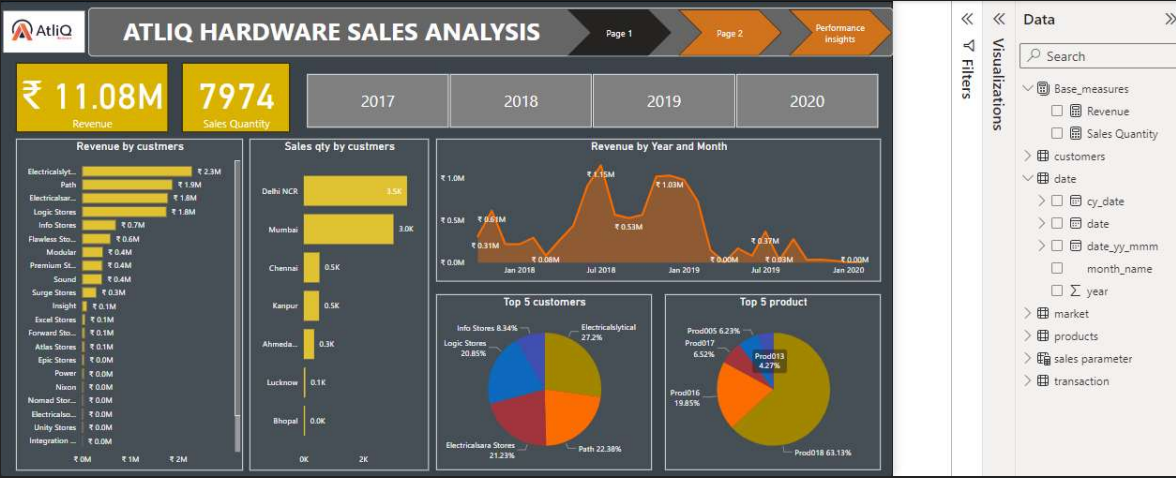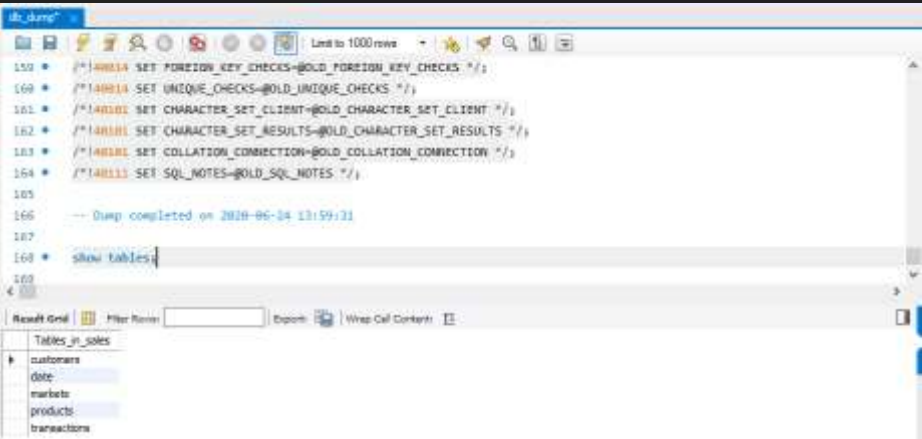
Data

The dataset consist of 5 Excel files consisting of

- Customers
- Date
- Market
- Products
- Transactions

End Result

An automated dashboard providing quick & latest sales insights in order to support data driven decision making.

Tools Used – MS EXCEL, POWER BI, MYSQL

My SQL- Analyzing the Dataset using MySQL

❑ The data had been imported to MySQL workbench and basic analysis is carried out. The main table transactions tells the overview of sales, products, customers, order date.

To understand the sales and revenue decline over the years we will analyse using below MySQL query by joining transactions and date tables.

Sales declined consecutively for 2 years which raised concern

In this result we can clearly see from <u>2018 -2020 the sales declined significantly</u> which raises concern in top management.

❑ When querying the transactions table we could find some discrepancies like <u>sales amount is -1</u> (As this can be eliminated since its insignificant).So checked the sales amount for any more insignificant value .1611 such records existed either with 0 price or -1. Maybe 0 price is manual error or could be that product given to customer for free as a goodwill.


So these records can be insignificant when deciding the sales and revenue and it can be omitted in visualisation.This data cleaning will be done in Powerbi desktop later.

PowerBi

❑ **Data Transferring-**

-*Importing data* - Import data from SQL into PowerBI to leverage SQL queries and stored procedures.

- Data Modeling - involves creating relationships between tables to establish connections and enable efficient data analysis.

- Creating Star Schema - a data modeling technique where a central "fact" table is connected to multiple "dimension" tables, facilitating data analysis.

Data Modeling (Star Schema)
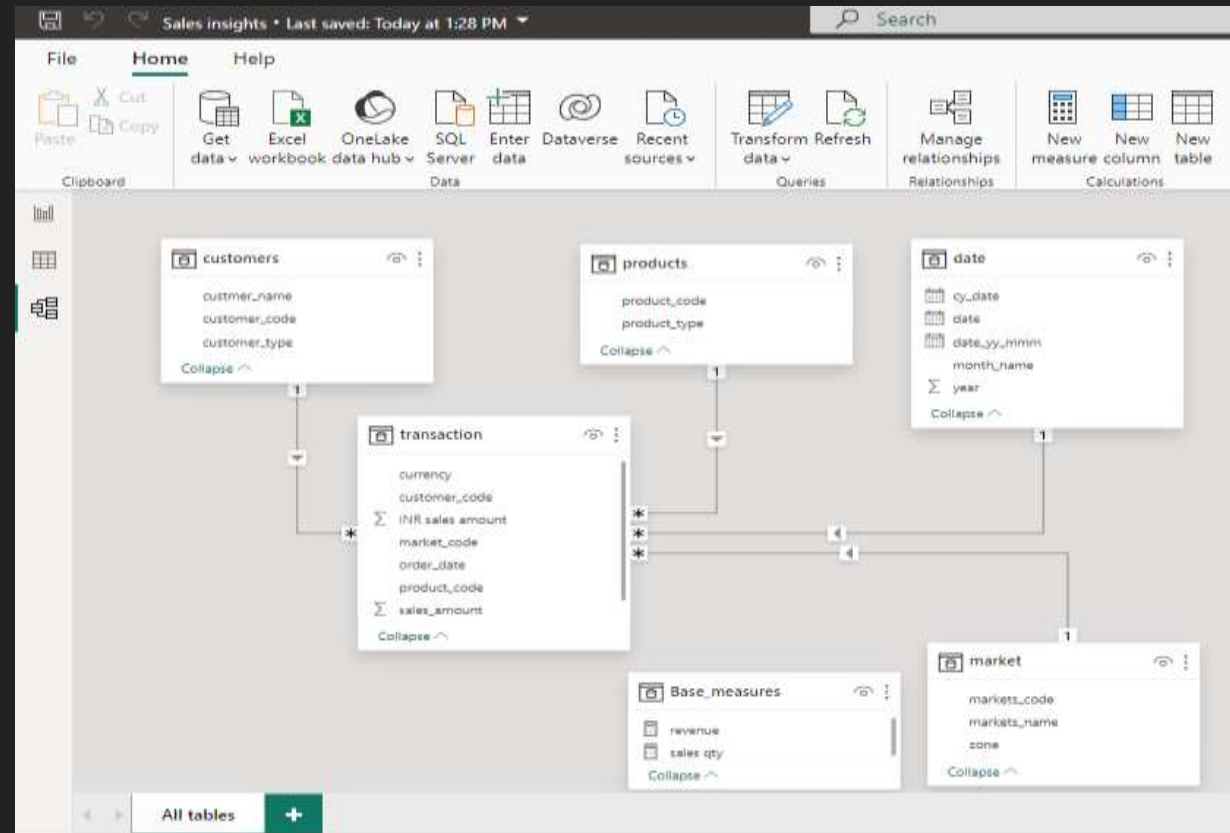
❏ Data Cleaning-

Power Query Editor- Filtering- removing blank values, negative amount, duplicate values, removing International locations (Paris, New York) for calculating accurate results.

Conditional Column- Changing USD to INR

Formula to create INR sales amount column

`= Table.AddColumn(#"Filtered Rows", "INR sales amount", each if [currency] = "USD" or [currency] ="USD#(cr)" then [sales_amount]*83 else [sales_amount], type any)`

❑ **Data Visualization**

- *Use of Cards-* These are compact visualizations that display a single, key metric or value. In this project it is used to show total revenue and total sales.

- *Bar charts-* which are effective for comparing values across categories and identifying trends or outliers in the data.

- *DAX (Data Analysis Expressions) -* formulas are used in Power BI to create calculated columns, measures, and tables, enabling users to perform complex calculations and analysis on their data. In this report DAX is used to calculate total revenue, total sales etc.

- *Drill Down -* allows users to explore data at different levels of detail, starting from a high-level overview and drilling down to more granular levels of data.

❑ Data Visualization

      - *Filtering the blank dates*- Blank date values may create unstructured data that can be difficult to   interpretate this is why blank dates needs to be removed.

Power Bi Dashboard
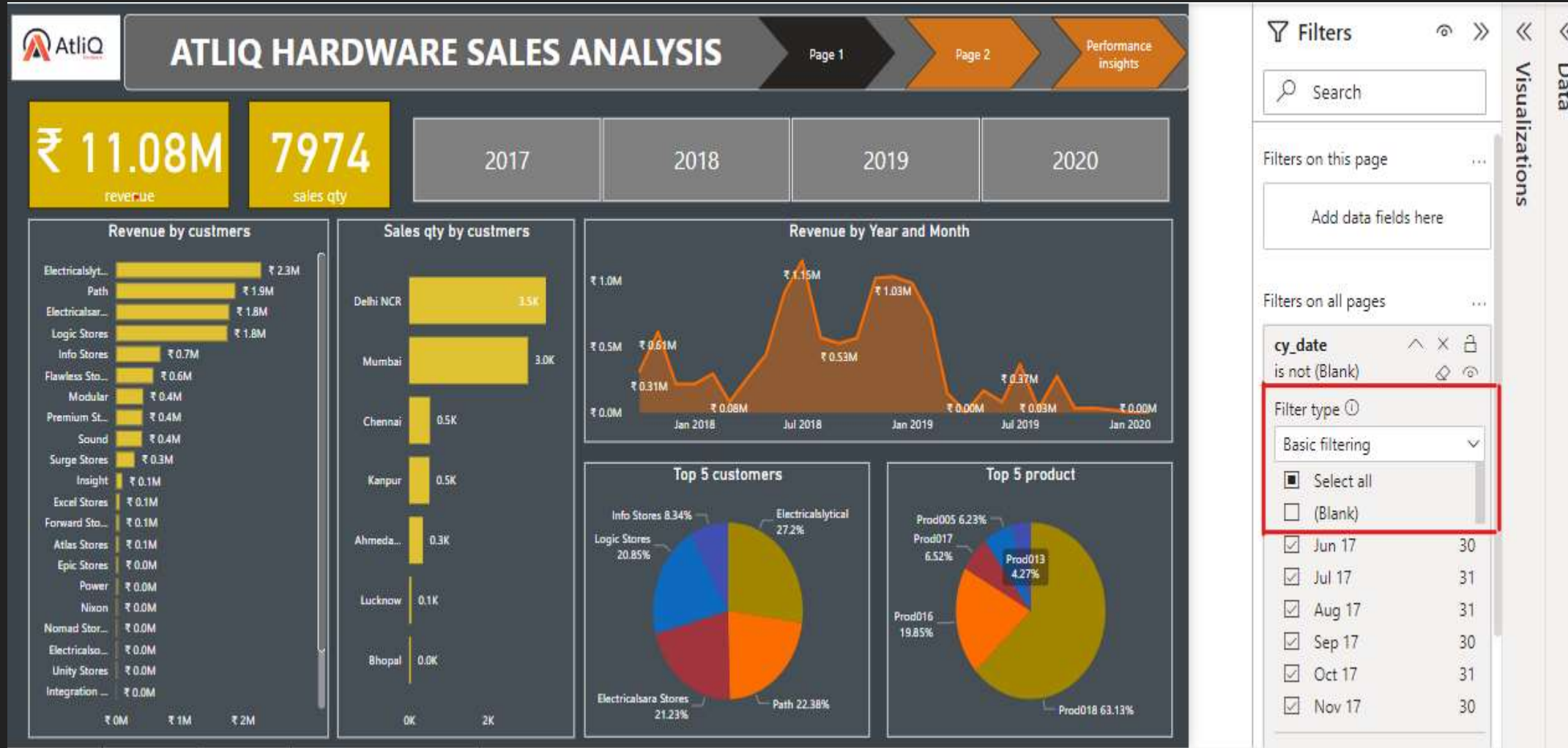
Insights generated

Agenda- Reason for declining sales and revenue.

Findings- This project aims to analyze the revenue and sales data of a company over a four-year period (2017-2020) to derive insights into its performance. The analysis includes **total revenue, sales quantity, revenue distribution among zones, customer contribution to revenue, sales distribution among regions, market-wise revenue, and top-performing product.**

1. Total Revenue and Sales:
- Total revenue for the four years is **INR 11.8 million**.
- Total sales quantity for the four years is **7974 units**.

2. Revenue Distribution Among Zones:
- *Central Zone* generates the highest revenue of INR 6.5 million, followed by North Zone with INR 4.3 million, and South Zone with INR 0.3 million.

3. Revenue Trend:
- Revenue has been observed to drop since January 2019.

4. Customer Contribution to Revenue:

- **"Electricalsquipo Stores"** is the top customer generating the maximum revenue of INR 2.3 million, accounting for **22.7%** of the total revenue.

- "Premium Stores" generate the lowest revenue of INR 24,000, contributing only 0.24% to the total revenue.

5. Sales Distribution Among Regions:

- **Delhi NCR** observes the maximum sales quantity of 3.5 thousand units, accounting for 43.5% of the total sales, whereas Bhopal observes the lowest sales quantity of 0.0 thousand units, contributing 0.54% to the total sales.

6. Market-wise Revenue:

- **Mumbai** observes the maximum revenue of INR 6.5 million, contributing 58% to the total revenue, whereas Bhopal observes the lowest revenue of INR 0.0 million, contributing 0.40% to the total revenue.

7. Top-Performing Product:

- **Product018** is the top-performing product, preferred by most customers.

Conclusion

The analysis provides valuable insights into the company's revenue and sales performance over the four-year period, highlighting key areas of strength and areas for improvement. These insights can be used to formulate strategic decisions to enhance the company's overall performance and profitability.

- From the sales trend we could see that **sales had been declined significantly after 2019** lately been related to COVID-19 pandemic.
- **Delhi NCR and Mumbai are top markets** in terms of revenue and sales.
- Found out **the top customers and products which contributed much of the revenue**.
- From this dashboard, the sales director can able to understand how well the business doing in certain aspects and can take data driven decision to improve the business of AtliQ Hardware.

Suggestions for the client

Agenda- Reason for declining sales and revenue.

As a data analyst, here are some suggestions I would suggest to the company head based on the key points:

- **Focus on Central Zone**:
    - ✓ Given that Central Zone generates the highest revenue, it may be beneficial to *allocate more resources and marketing efforts* to further capitalize on this strong market.
- **Addressing Revenue Drop**:
    - ✓ *Investigate the factors contributing to the drop in revenue since January 2019.* Analyze market trends, competitor activities, and customer feedback to identify potential causes and develop strategies to reverse this trend.
- **Customer Segmentation and Targeting**:
    - ✓ Given that "Electricalsquipo Stores" contribute significantly to revenue, *consider implementing targeted marketing campaigns or loyalty programs* to further engage and retain these customers.
    - ✓ For low-contributing customers like "Premium Stores," *evaluate the potential for increasing their engagement through tailored offerings or improved customer service.*

- **Sales Strategy for Delhi NCR**:
  - ✓ Since Delhi NCR observes the maximum sales quantity, *develop a focused sales strategy to maintain and expand market share in this region*. This could include offering special promotions or expanding product offerings based on customer preferences.
- **Market Diversification**:
  - ✓ While Mumbai generates the highest revenue, consider *diversifying into other markets to reduce dependency and mitigate risks* associated with fluctuations in a single market.
- **Product Portfolio Optimization**:
  - ✓ Given the popularity of Product018, consider *investing in the development and promotion of similar products* to capitalize on customer preferences.
- **Monitoring and Evaluation**:
  - ✓ *Implement regular monitoring and evaluation mechanisms* to track the effectiveness of implemented strategies and make necessary adjustments based on performance data.
- **Data-Driven Decision Making**:
  - ✓ Encourage a culture of data-driven decision-making within the organization, leveraging insights from data analysis to guide strategic planning and operational activities.