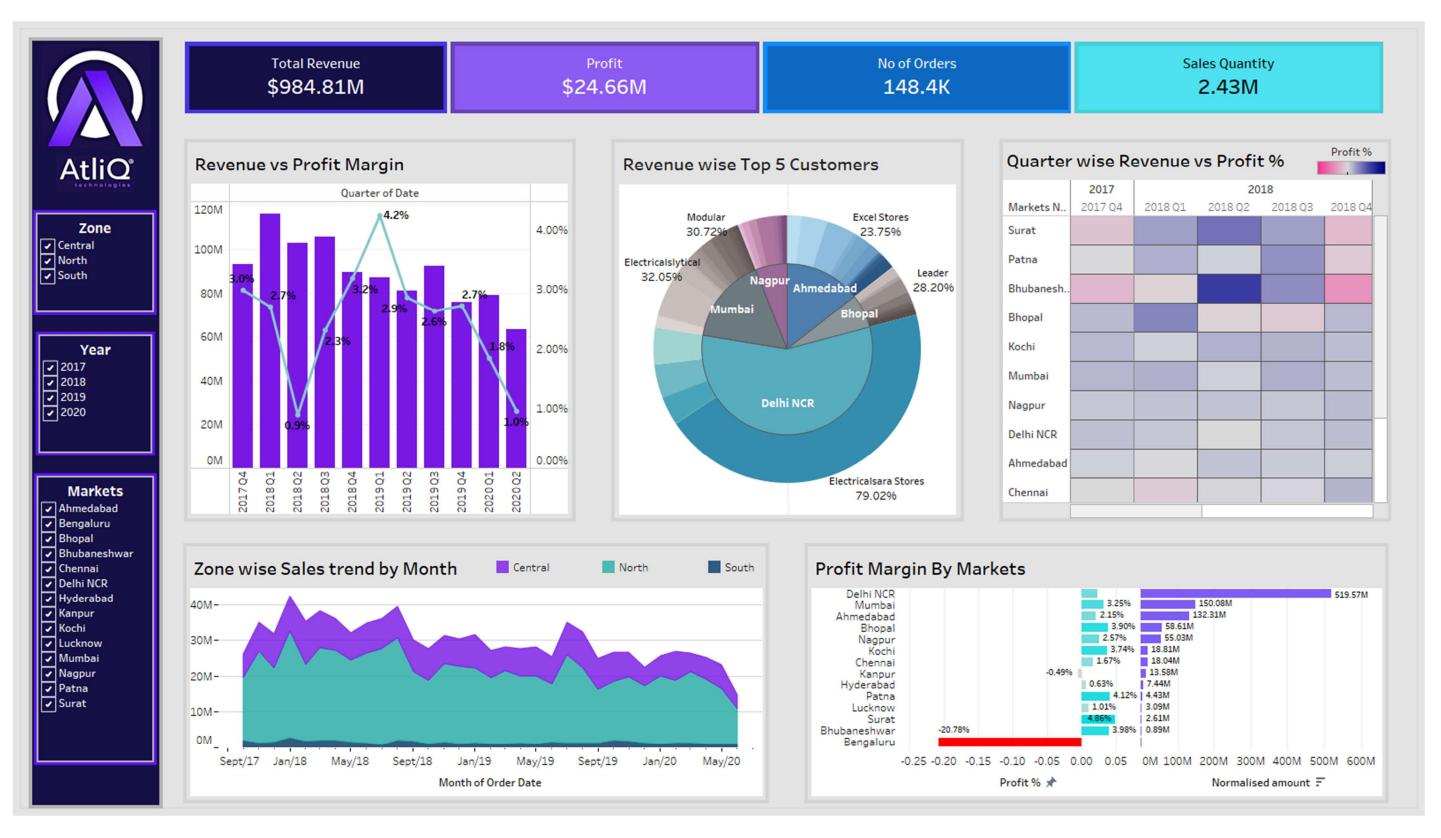
AtliQ Hardware Sales Analysis



i. Purpose of the Project:

- Unlock sales insights previously unnoticed by the sales team.
- Provide decision support to optimize strategies.
- Automate manual data gathering processes, reducing time spent on repetitive tasks.

ii. Stakeholders:

- Sales Director: Oversee and implement strategic sales decisions.
- Marketing Team: Leverage insights for targeted campaigns and promotions.
- Customer Service Team: Enhance customer retention through data-driven strategies.
- Data & Analytics Team: Analyse and interpret data trends to generate actionable insights.
- IT Team: Ensure seamless integration and maintenance of the automated dashboard.

iii. End Result of the Project:

- Develop an automated dashboard delivering real-time and comprehensive sales insights.
- Facilitate data-driven decision-making for stakeholders.

iv. Success Criteria:

- Quantifiable metrics to gauge project success, such as:
 - o A 20% reduction in manual data gathering time.
 - $_{\circ}$ $\,$ Reallocation of saved time to high-value activities.
 - o Improved decision-making efficiency and speed.

Process of Data Analytics

1. Data Sources and Transactional System (OLTP)

- Records daily operations like sales and invoices in a MySQL database. Keeps the system fast and reliable for business use
- Importance: Prevents disruption of core business functions by avoiding analytical queries on this critical system.

2. Data Engineering and Data Warehousing (ETL Process)

- 1. Extract: Pull raw data from OLTP.
- Transform: Clean and prepare data for analysis.
- Load: Store in a dedicated data warehouse.
- Importance: Keeps OLTP system optimized while enabling efficient analytics in a scalable warehouse.

IT Team: Maintains OLTP.

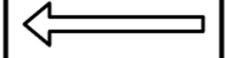
Data Engineers: Handle ETL and data warehouse.

Data Analysts/Scientists: Extract insights and

create visualizations.

4. Data Analysis and Dashboarding

- Analysts use tools like Tableau or Python to create dashboards and generate actionable insights
- Importance: Helps decisionmakers act quickly using trends and metrics for better business outcomes



3. Analytical Systems (OLAP)

- Data warehouse (OLAP) is used to run queries, build dashboards, and develop ML models
- Importance: Separates analytics from operations, ensuring smooth business functioning even if OLAP goes down.

Insights and Recommendations:

1. Month-Wise Sales Pattern:

• Trend:

- Peak performance observed in mid-year (July August).
- o Decline in sales noted towards year-end (November December).

Solutions:

- o Plan and execute promotional campaigns during July and August.
- o Ensure adequate stock levels to meet increased demand.
- o Offer year-end discounts targeting industries with unspent budgets.

2. Sales Generating Regions:

• Trend:

- o North zone, especially **Delhi NCR**, consistently outperforms other regions in sales volume.
- $_{\circ}$ $\,$ However, Delhi NCR also shows the steepest decline in sales over time.

• Solutions:

- o Launch region-specific marketing campaigns with a focus on Delhi NCR.
- o Provide discounts and loyalty incentives for existing customers in the area.
- o Invest in digital marketing tailored for Delhi NCR and provide region-specific training to sales teams.

3. City-Wise Profit Percentage vs Normalized Sales:

1. Top Performer:

• Delhi NCR has the highest normalized sales (~519.57M) but a profit percentage of only 2.30%, indicating high sales volume but average profitability.

2. High Profitability Regions:

• Cities like Bengaluru (-20.78%) and Kanpur (-0.49%) are incurring negative profit percentages, meaning these regions may need cost optimization or pricing strategies.

3. Cities with Balanced Growth:

• Surat (4.86%) and Bhubaneshwar (3.98%) have small normalized sales volumes but demonstrate the highest profit percentages, showcasing efficient cost management or pricing in these regions.

4. Growth Opportunities:

• Mumbai and Bhopal show moderate sales volumes (~150M and ~58.6M, respectively) with good profit margins (3.25% and 3.90%). These cities could be further targeted for scaling operations.

4. Revenue vs Profit Margin Over Time:

1. Trend in Profit Margin:

- Profit margin peaked in 2018 Q3 (4.2%), coinciding with one of the highest revenues (~120M). This may reflect successful campaigns or cost efficiency during that period.
- The lowest profit margin (0.9%) occurred in 2018 Q1, despite relatively high revenue (~80M), suggesting potential cost overruns or pricing challenges.

2. Steady Decline:

• A consistent drop in profit margin is observed from **2019 Q4 (2.7%)** to **2020 Q2 (1.0%)**, which may indicate external economic factors (e.g., market saturation, higher costs, or reduced demand).

3. Revenue Fluctuations:

• Revenue remains relatively stable across quarters but shows signs of a slight downward trend after 2019, correlating with declining profit margins.

4. Actionable Insight:

- Focus on replicating the strategies from 2018 Q3, where both revenue and profit margin peaked.
- Investigate the reasons behind lower margins post-2019 and implement cost reduction or process optimization strategies.