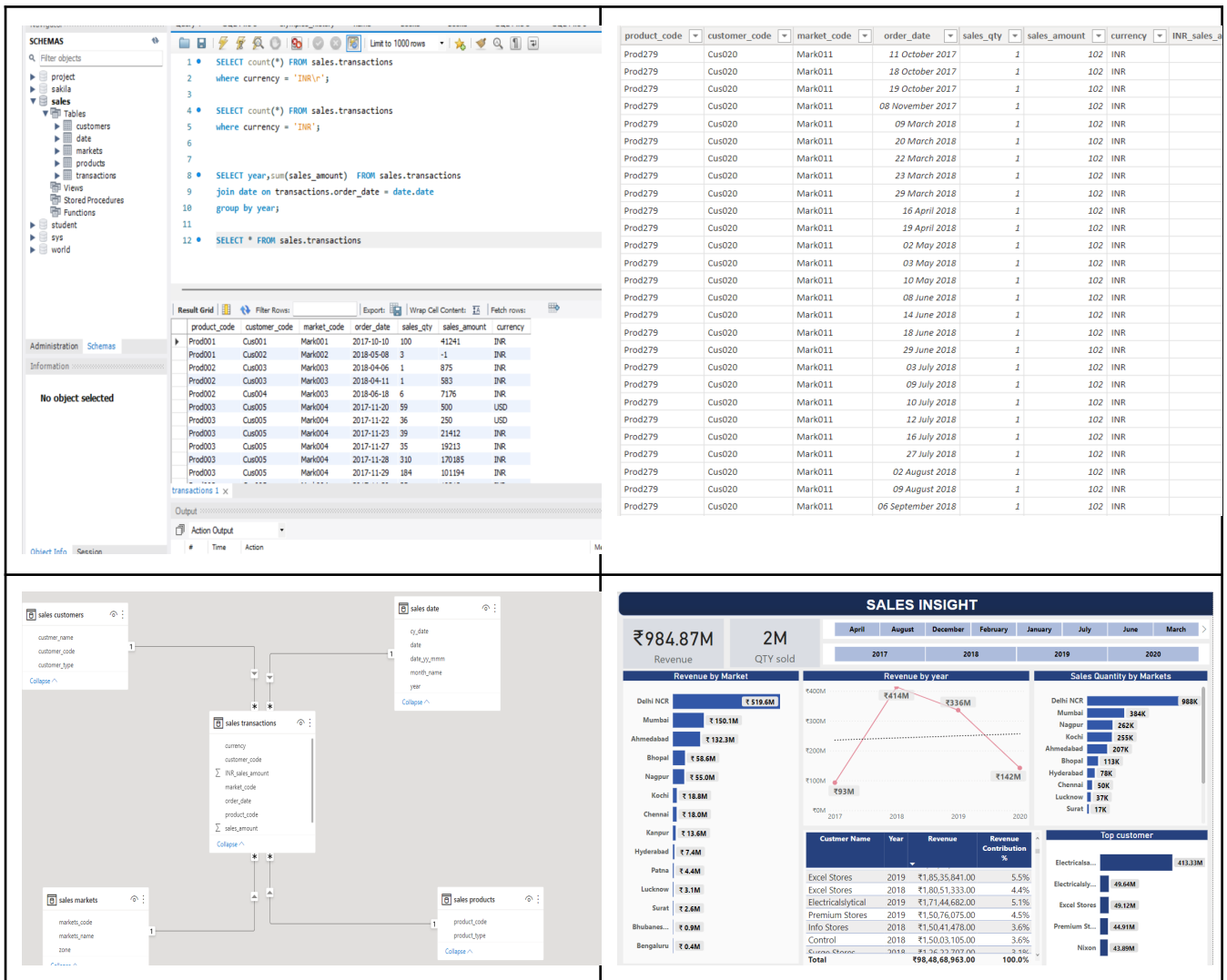


AtliQ hardware Analysis project



AtliQ hardware

AtliQ is a hardware making, which was established in 2017, has successfully developed various hardware like security cameras and computer hardware. The company has sold more than 2 Million products to date.

Business Request

The business request was collected for analyzing the AtliQ hardware dataset to generate insight.

# As a(role)	I want (request/demand)
1. manager	<ol style="list-style-type: none">1. How is revenue doing? it is growing or not.2. Market with the highest sales and quantity3. Who are our top customers?4. Which customer contributes more in revenue.5. And drilling option so I can view specific Market, customer, revenue etc.

Data Exploratory analysis through SQL

1. Show all Customer and Transaction records

```
SELECT * FROM sales.customer;
```

```
SELECT * FROM sales.transactions;
```

2. Show total customers

```
SELECT count(*) FROM sales.customers;
```

3. Show transactions for Chennai market (market code for Chennai is Mark001)

```
SELECT * FROM sales.transactions
```

```
WHERE market_code = 'mark001';
```

4. Show distinct product codes that were sold in Chennai

```
SELECT distinct(product_code) FROM sales.transactions
```

```
where market_code = 'mark001';
```

5. Show transactions where the currency is US dollars

```
SELECT * from transactions where currency="USD"
```

6. Show transactions in 2020 join by date table

```
SELECT * from transactions as t
```

```
inner join date as d on t.order_date = d.date
```

```
where year = 2020;
```

7. Show total revenue in the year 2020,

```
SELECT sum(sales_amount) from transactions as t
inner join date as d on t.order_date = d.date
where d.year=2020 and t.currency="INR\r" or t.currency="USD\r";
```

8. Show total revenue in year 2020, January Month,

```
SELECT sum(sales_amount) from transactions as t
inner join date as d on t.order_date = d.date
where d.year=2020 and d.month_name = 'january' and (t.currency="INR\r" or
t.currency="USD\r");
```

9. Show total revenue in year 2020 in Chennai

```
SELECT sum(sales_amount) from transactions as t
inner join date as d on t.order_date = d.date
where d.year=2020 and market_code = 'mark001' and (t.currency="INR\r" or
t.currency="USD\r");
```

10. Show total sales by year

```
SELECT year,sum(sales_amount) from transactions as t
inner join date as d on t.order_date = d.date
where t.currency="INR\r" or t.currency="USD\r"
group by year;
```

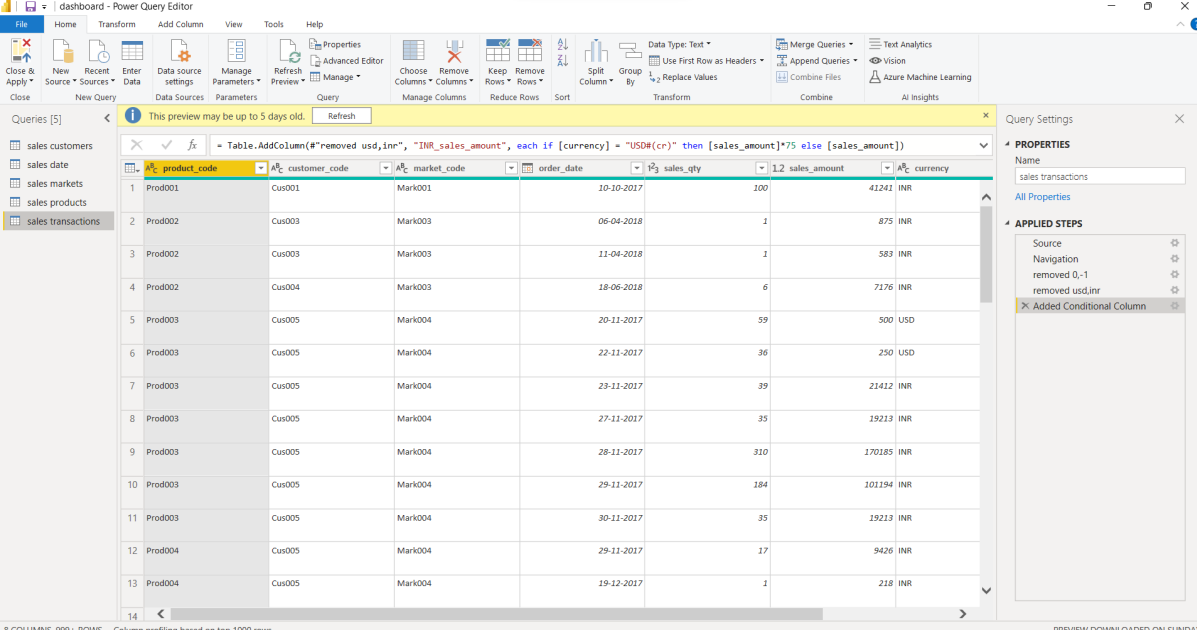
11. Show top product

```
SELECT product_code ,sum(sales_amount) as top_product from
transactions as t
group by product_code
order by top_product desc;
```

ETL (Extraction-Transformation-load)

After EDA(exploratory data analysis) imperative data were extracted from Database, then data were Transformed, structured, and modeled in power bi for visualization. The AtliQ hardware Dataset transaction data was organized as a fact table and product, market, date & customer were organized as dimension tables for filtering data.

The following steps were done in Power BI to transform the data table to be ready for analysis purposes:



The screenshot displays the Power Query Editor interface. The main area shows a data table with the following columns: product_code, customer_code, market_code, order_date, sales_qty, sales_amount, and currency. The table contains 13 rows of data. The right sidebar shows the 'PROPERTIES' and 'APPLIED STEPS' panels. The 'APPLIED STEPS' panel lists the following steps: Source, Navigation, removed 0..1, removed usd, Inr, and Added Conditional Column.

product_code	customer_code	market_code	order_date	sales_qty	sales_amount	currency
Prod001	Cus001	Mark001	10-10-2017	100	41241	INR
Prod002	Cus003	Mark003	06-04-2018	1	875	INR
Prod002	Cus003	Mark003	11-04-2018	1	583	INR
Prod002	Cus004	Mark003	18-06-2018	6	7176	INR
Prod003	Cus005	Mark004	20-11-2017	59	500	USD
Prod003	Cus005	Mark004	22-11-2017	36	250	USD
Prod003	Cus005	Mark004	23-11-2017	39	21412	INR
Prod003	Cus005	Mark004	27-11-2017	35	19213	INR
Prod003	Cus005	Mark004	28-11-2017	310	170185	INR
Prod003	Cus005	Mark004	29-11-2017	184	101194	INR
Prod003	Cus005	Mark004	30-11-2017	35	19213	INR
Prod004	Cus005	Mark004	29-11-2017	17	9426	INR
Prod004	Cus005	Mark004	19-12-2017	1	218	INR

The screenshot shows the Power Query Editor interface. The main area displays a table with 15 rows and 3 columns: `markets_code`, `markets_name`, and `zone`. The table contains data for various Indian cities and their corresponding zones.

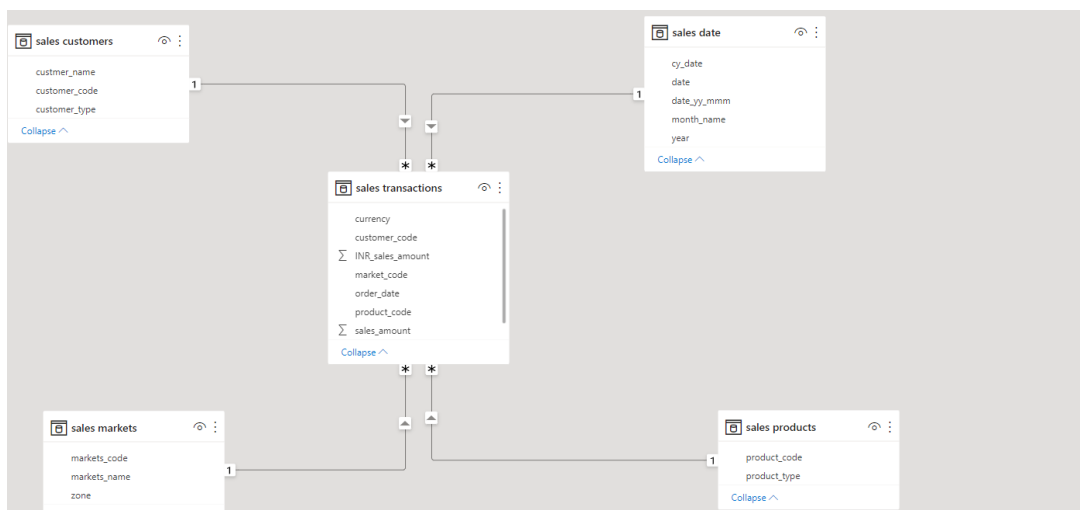
	markets_code	markets_name	zone
1	Mark001	Chennai	South
2	Mark002	Mumbai	Central
3	Mark003	Ahmedabad	North
4	Mark004	Delhi NCR	North
5	Mark005	Kanpur	North
6	Mark006	Bengaluru	South
7	Mark007	Bhopal	Central
8	Mark008	Lucknow	North
9	Mark009	Patna	North
10	Mark010	Kochi	South
11	Mark011	Nagpur	Central
12	Mark012	Surat	North
13	Mark013	Bhopal	Central
14	Mark014	Hyderabad	South
15	Mark015	Bhubaneswar	South

The interface includes a ribbon with tabs like File, Home, Transform, Add Column, View, Tools, and Help. The 'Transform' tab is active, showing options like 'Table.SelectRows'. The right sidebar shows 'Query Settings' with 'Name' set to 'sales markets' and 'Applied Steps' including 'Source', 'Navigation', and 'Filtered Rows'.

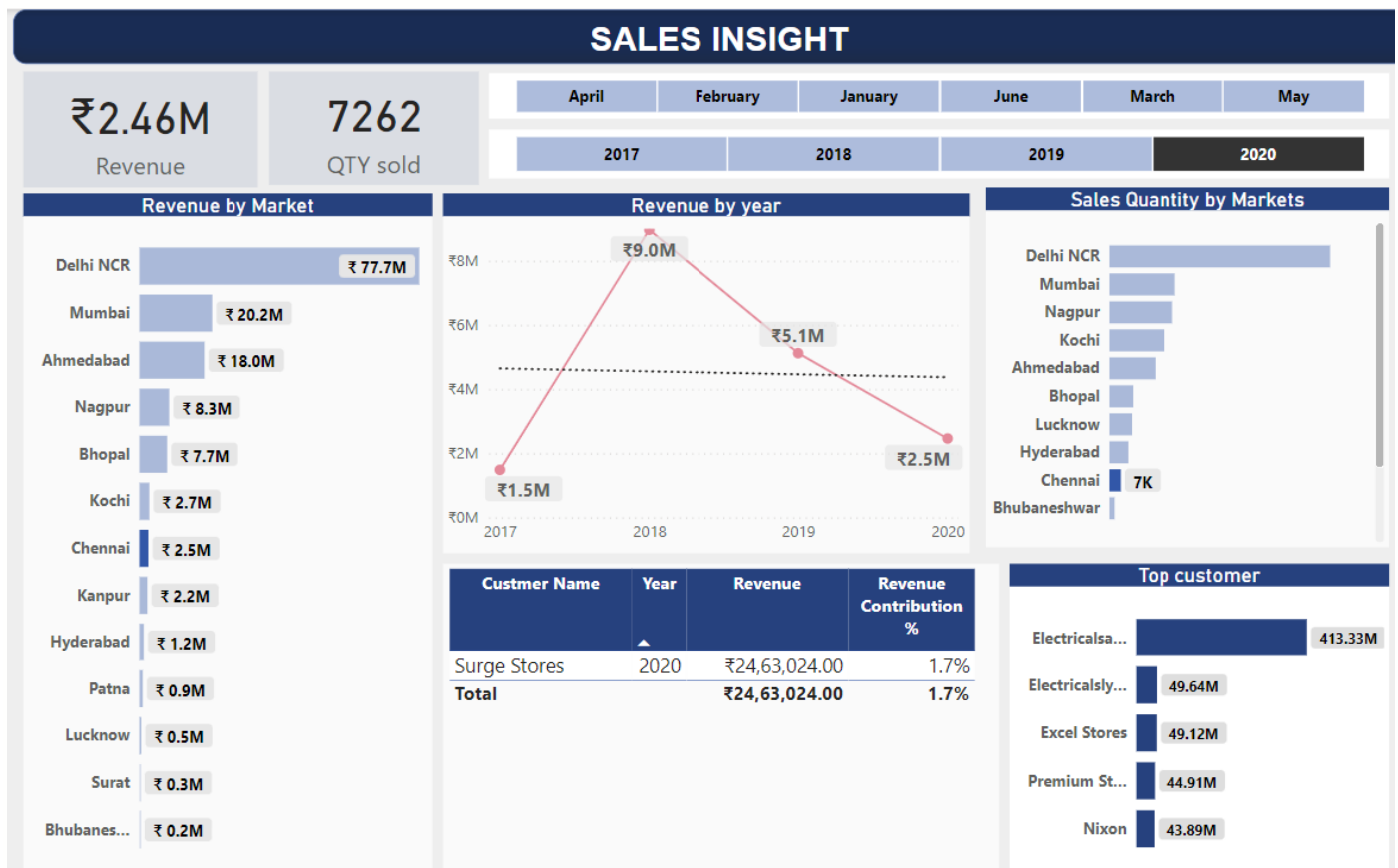
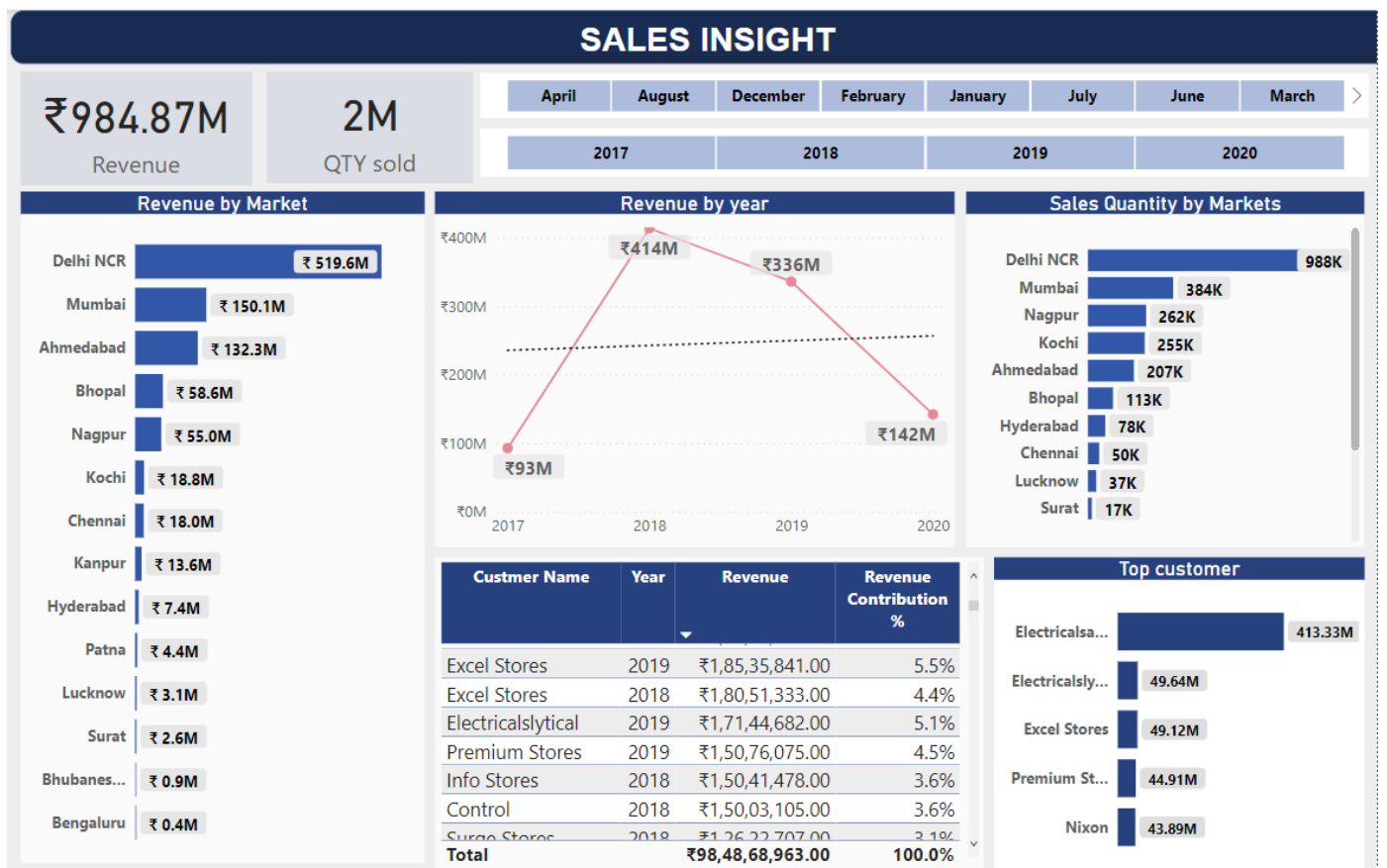
Data Model

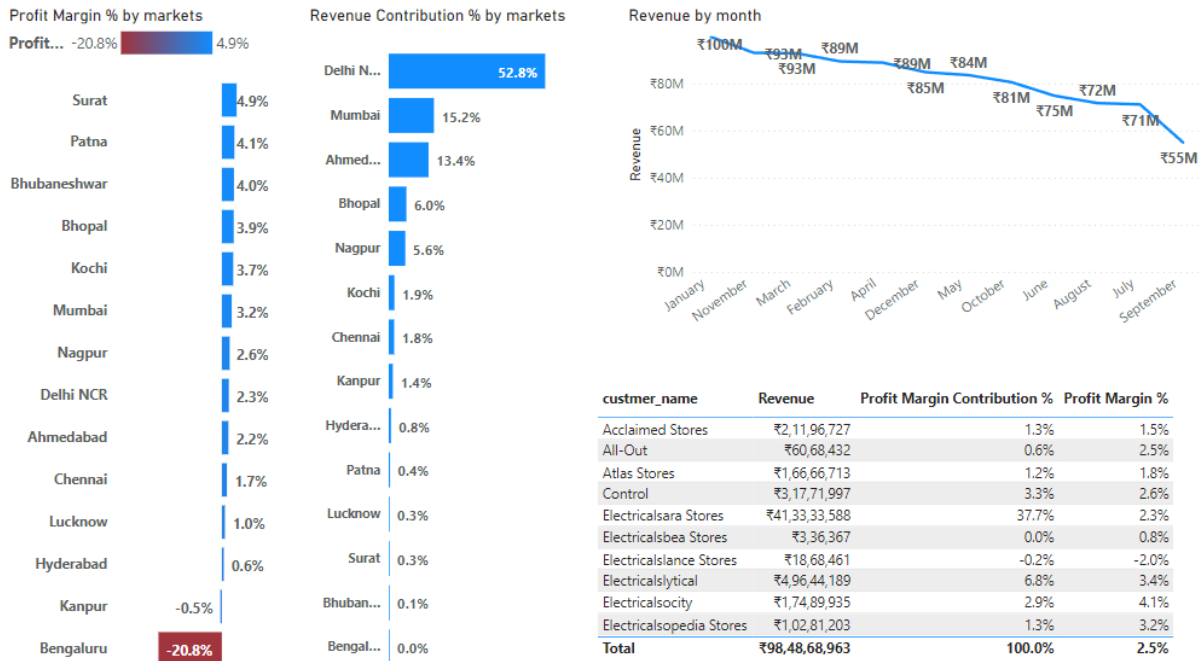
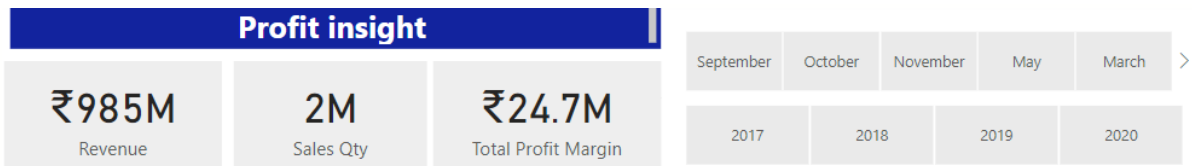
Below is a screenshot of the data model, after cleansing and preparing the tables.

We can see that the FACT table is connected to four dimension tables with the correct relationship established(1 to *) between dimension and fact tables.



AtliQ hardware Analysis Dashboard





Revenue by month

₹100M

₹93M

₹89M

₹89M

₹84M

₹85M

₹81M

₹75M

₹72M

₹71M

₹55M

January

November

March

February

April

December

May

October

June

August

July

September

customer_name	Revenue	Profit Margin Contribution %	Profit Margin %
Acclaimed Stores	₹2,11,96,727	1.3%	1.5%
All-Out	₹60,68,432	0.6%	2.5%
Atlas Stores	₹1,66,66,713	1.2%	1.8%
Control	₹3,17,71,997	3.3%	2.6%
Electricalsara Stores	₹41,33,33,588	37.7%	2.3%
Electricalsbea Stores	₹3,36,367	0.0%	0.8%
Electricalslance Stores	₹18,68,461	-0.2%	-2.0%
Electricalslytical	₹4,96,44,189	6.8%	3.4%
Electricalsociety	₹1,74,89,935	2.9%	4.1%
Electricalsopedia Stores	₹1,02,81,203	1.3%	3.2%
Total	₹98,48,68,963	100.0%	2.5%

Conclusion:

Here is an AtliQ hardware Analysis Dashboard where the manager can view all query answers. we see who are the top customer and AtliQ decide to give them special service, Revenue by the market as well as profit contribution, profit margin of each market, year-wise, loss-making customers, revenue trend, and much more insight from visualization. So the business manager can take critical decisions for the business based on data.