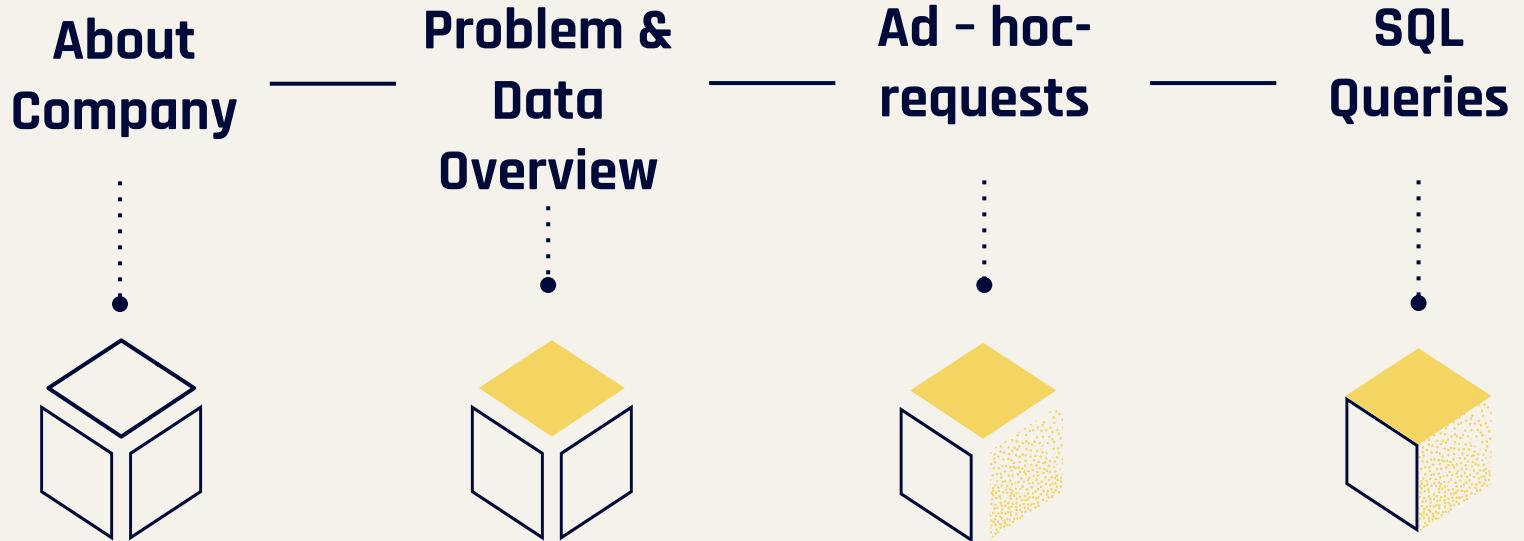


# Atliq Hardwares

## Domain: Consumer Goods

Presented by : Manav Paneliya

# Timeline





# Atliq Hardwares

One of the Leading Computer hardware producers, with a strong presence in India and other Nation



## PROBLEM

Management has discovered that they are not getting enough insights to make quick and informed data-driven choices

## SOLUTION

Expand data analytics team, which can help them make quick and smart data-driven decisions

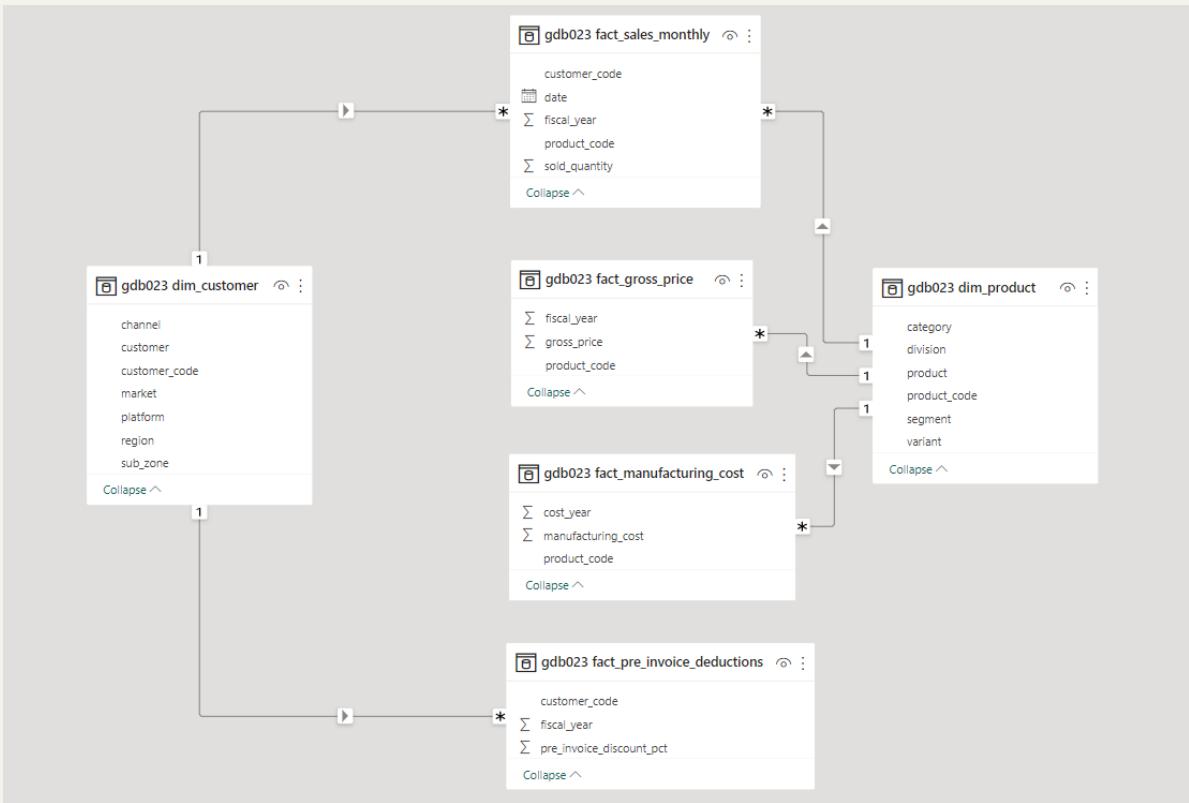
# Approach of Analysis

The following measures were taken:

- Understand the Data
- How can every requests add value to the business
- Discover the required tables in the star schema
- Discover valuable insights



# Dimensional Modeling



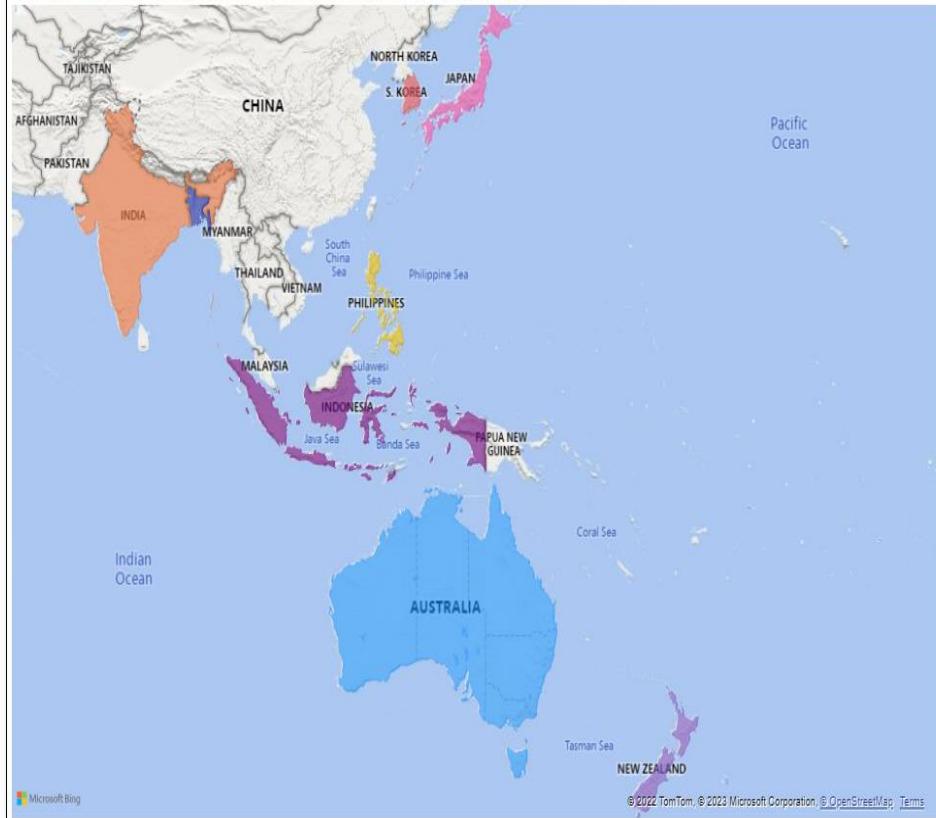


01

## Atliq Exclusive

List of marketplaces for customers, "Atliq Exclusive" does business throughout the APAC region

Countries ● Australia ● Bangladesh ● India ● Indonesia ● Japan ● New Zealand ● Philippines ● South Korea



# APAC region

- Australia
- Bangladesh
- India
- Indonesia
- Japan
- New Zealand
- Philippines
- South Korea



02

## Unique Product

Percentage of unique product increase in 2021 vs. 2020

# Unique Products in 2021 vs. 2020

245

**Year 2020**

Unique Products  
sold in the year  
2020

334

**Year 2021**

Unique Products  
sold in the year  
2021

36.33% 

**% Change**

The Percentage  
change between  
the year 2020 vs  
2021



**13**

Products sold in  
2020 that are  
distinct from those  
sold in 2021



**102**

Products sold in  
2021 that are  
distinct from those  
sold in 2020



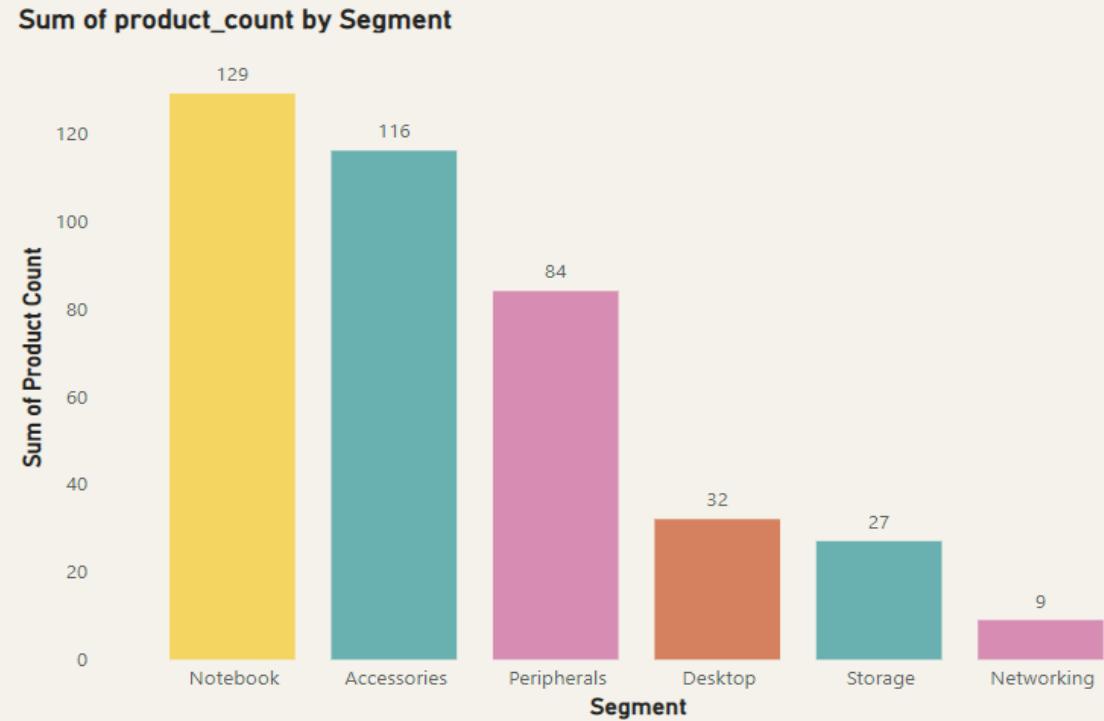
03

## Product for each Segment

Provide a report with all the unique product counts for each segment and sort them in descending order of product counts

# Insight

In Notebook Segment the most items (129) were sold, while for Networking Segment the lowest (9) were products sold





# 04

## Products increase in 2021 vs 2020

Which segment had the most increase in unique products in 2021 vs 2020?

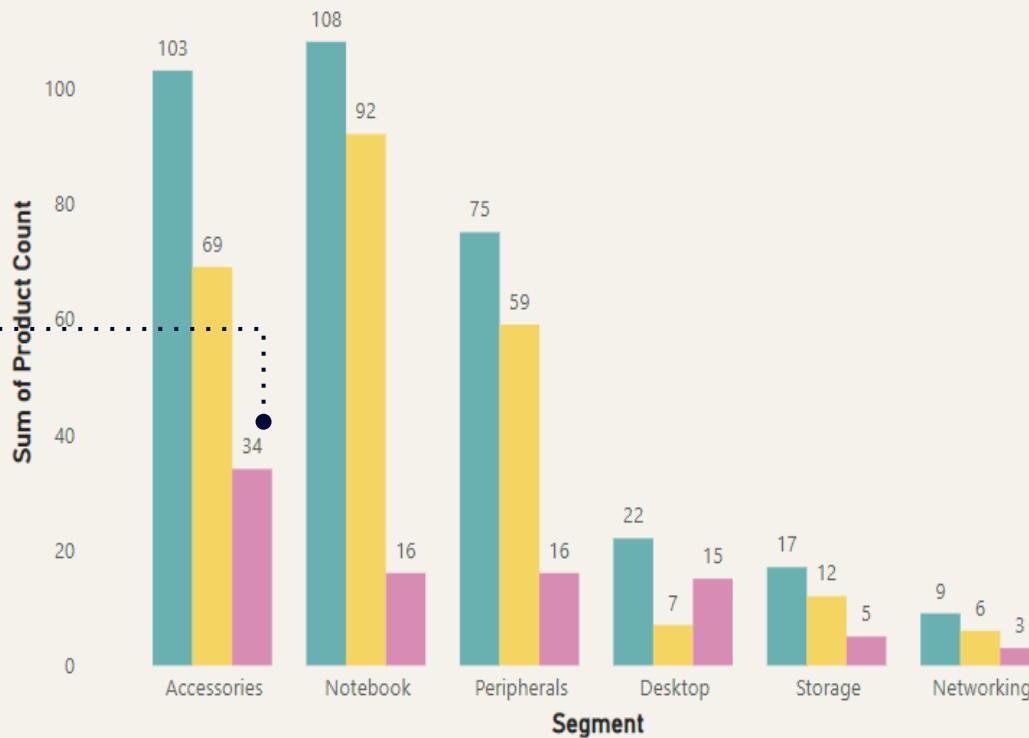
# 34

## Accessories

In the year 2021,  
had the largest  
products growth

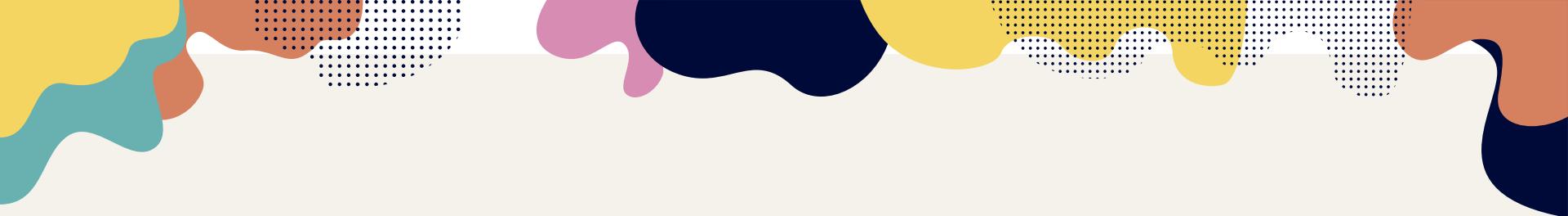
Sum of product\_count between year 2021 vs 2020 by Segment

● Sum of product\_count\_2021 ● Sum of product\_count\_2020 ● Sum of difference



# 3

- **Networking**  
The product increased in networking was the smallest in the year 2021



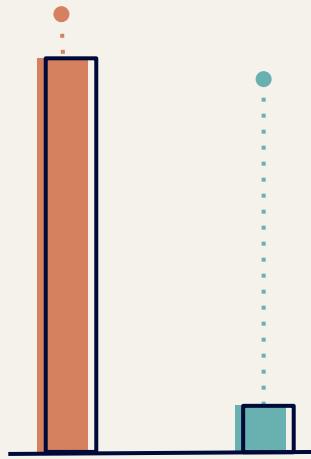
# 05

## Highest and Lowest manufacturing Costs

Get the products that have the highest and lowest manufacturing costs

# Manufacturing Cost

240.53 \$    0.89 \$



**AQ HOME Allin1  
Gen 2**

product required  
the most money  
to manufacture

**AQ Master wired  
x1 Ms**

product required  
the least money  
to manufacture



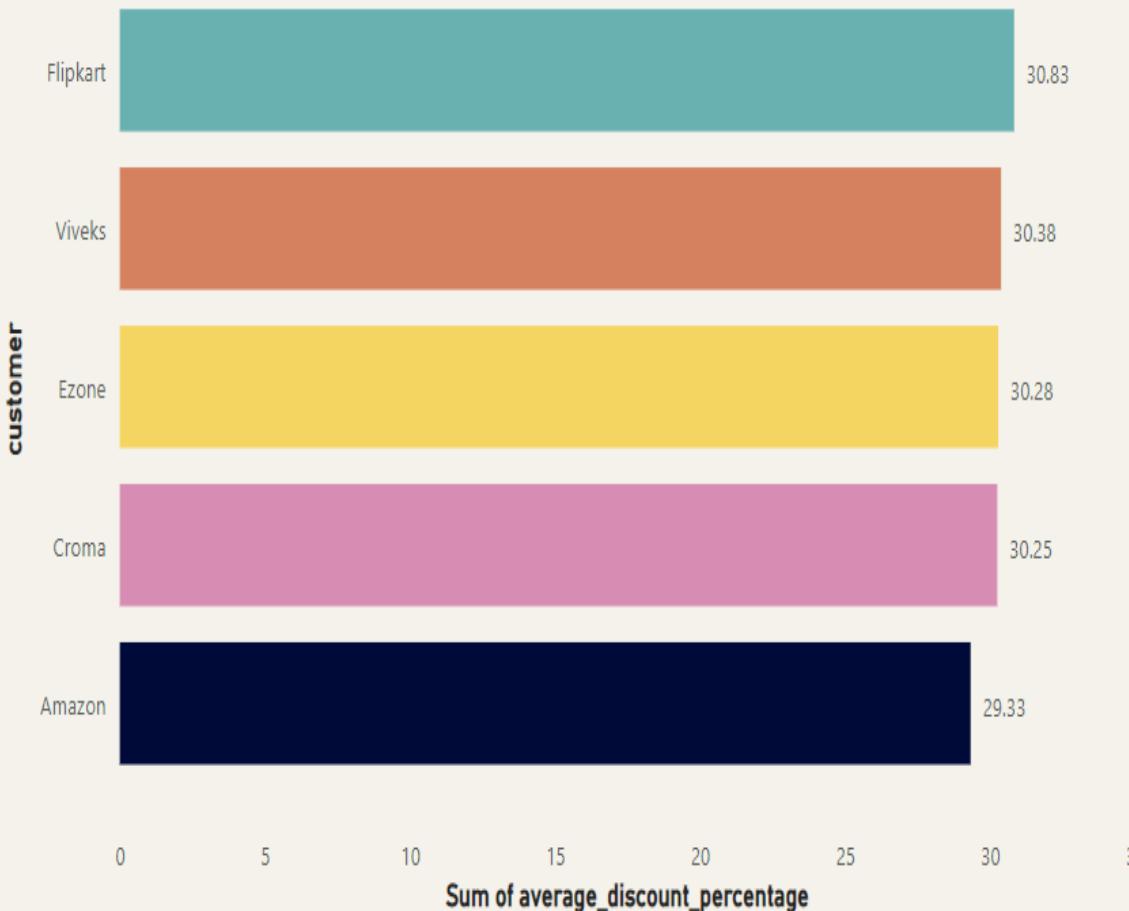


# 06

## **Customers having a high average pre-invoice discount %**

Generate a report which contains the top 5 customers who received an average high pre\_invoice\_discount\_pct for the fiscal year 2021 and in the Indian market

## Sum of average\_discount\_percentage by customer



## Flipkart

Flipkart is the Atliq's most significant customer in India

## Ezone & Croma

The Atliq provided about the same amount of discount to both consumer

## Viveks

Viveks is the company's second most valued customer in India

## Amazon

Despite being the last on the list, it is one of the most significant customers for the company



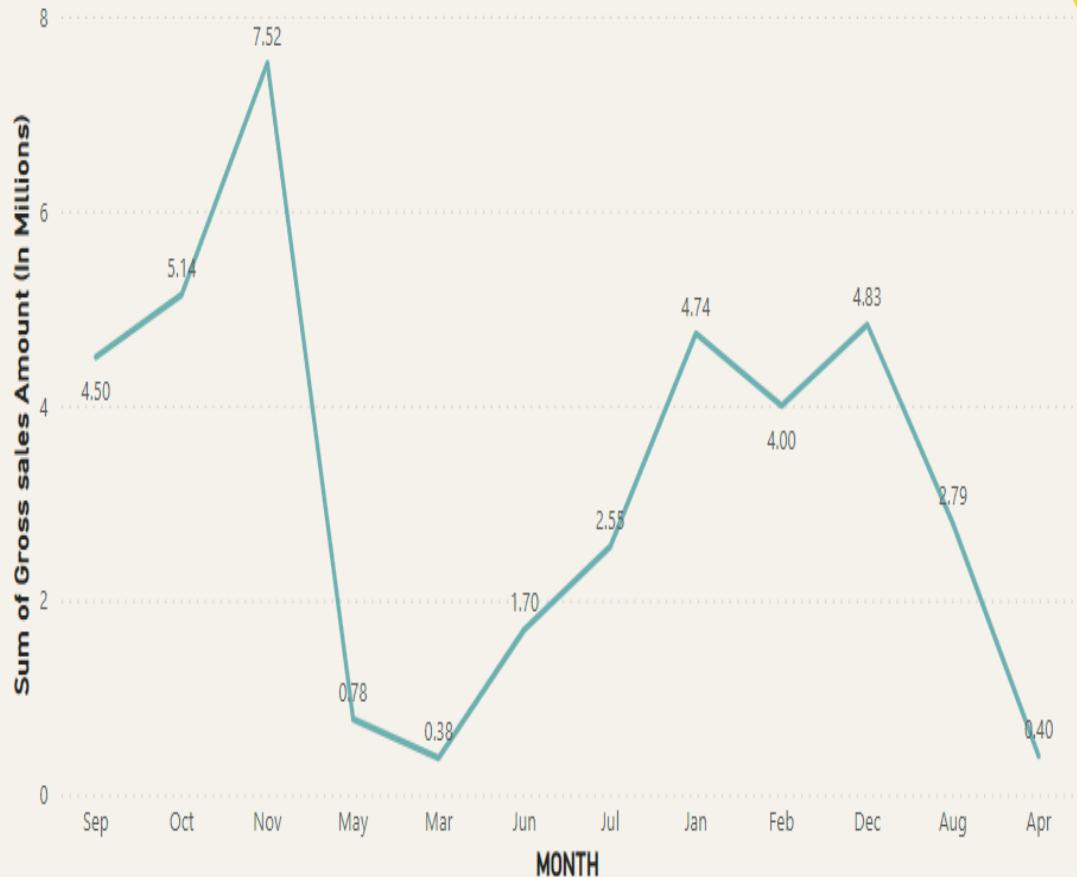
07

## Report on Gross Sales

Get the complete report of the Gross sales amount for the customer “Atliq Exclusive” for each month

# Year 2020

Sum of Gross sales Amount (In Millions) by MONTH



High

- Month of Nov had the highest sales
- Gross sales around \$7.6 millions

Average

- Month of Sep, Jan and Dec had the average sales
- Gross sales were respectively \$4.50, \$4.74, and \$4.83 millions

Low

- Month of Mar and Apr had the lowest sales
- Gross sales were \$0.38, \$0.40, respectively

# Year 2021

**High**

- Month of Nov had the highest sales
- Gross sales around \$28 millions

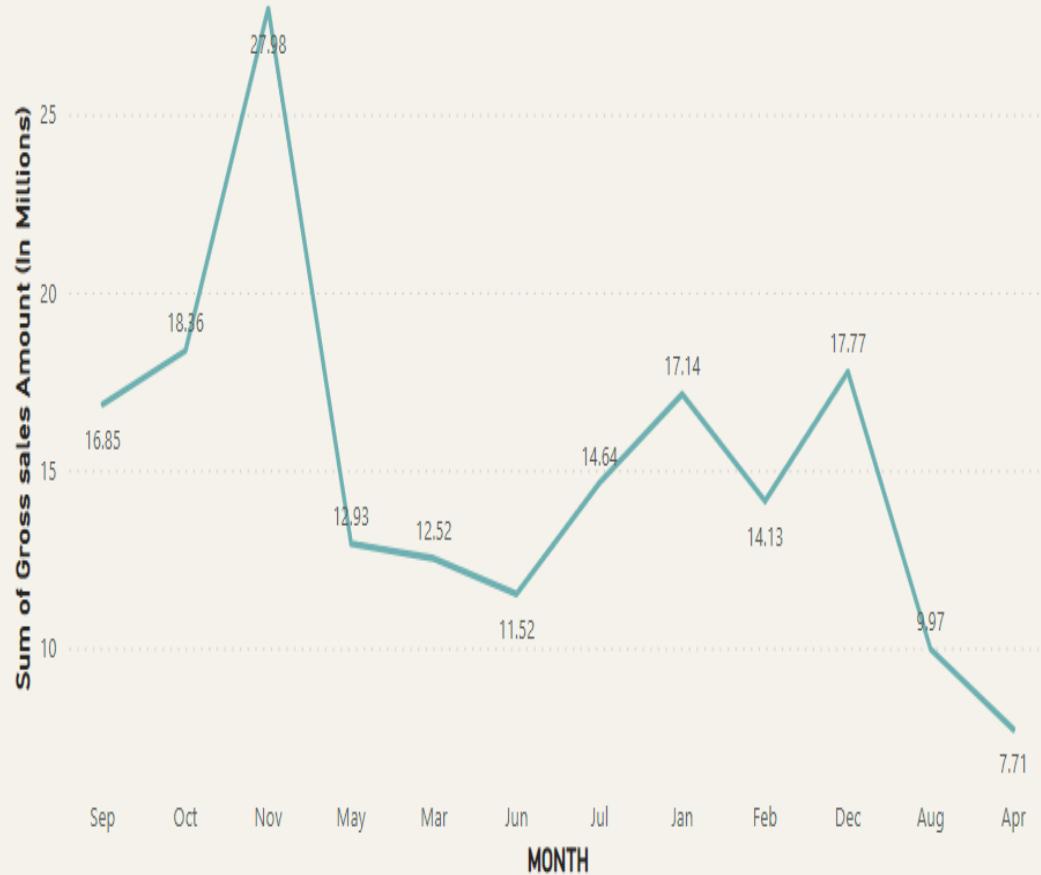
**Average**

- Month of Sep, Jan and Dec had the average sales
- Gross sales were respectively \$16.85, \$17.14, and \$17.77 millions

**Low**

- Month of Apr and Aug had the lowest sales
- Gross sales were \$7.71, \$9.97, respectively

Sum of Gross sales Amount (In Millions) by MONTH



**In comparison to year  
2020, Atliq Exclusive had  
the highest sales in year  
2021. As a result, this  
customer is vital to Atliq  
Hardwares**



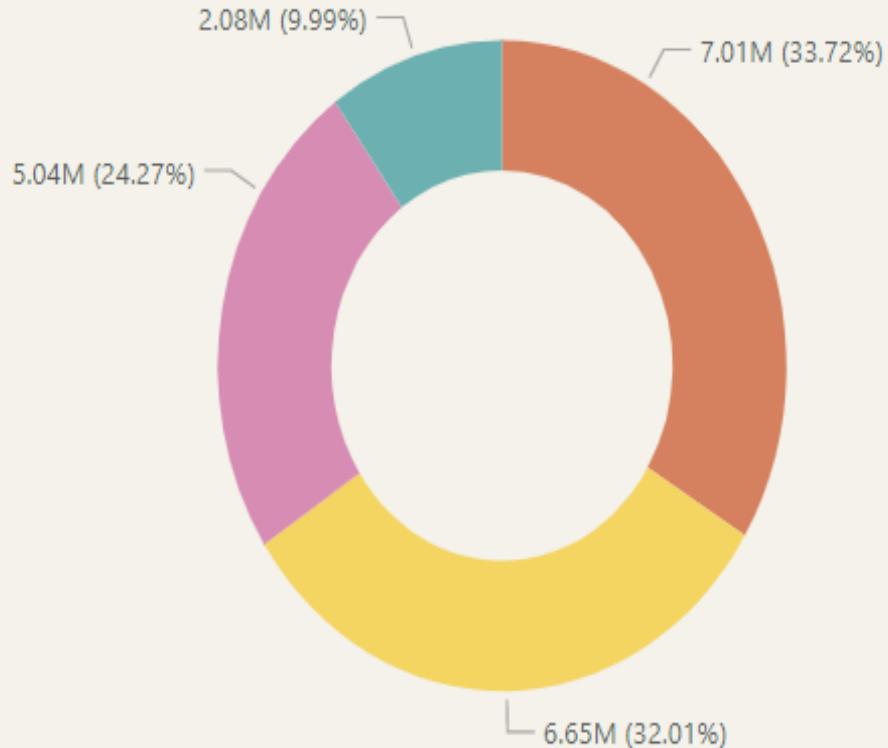


08

## Quarter of 2020

In which quarter of 2020, got the maximum total\_sold\_quantity?

## Sum of total\_sold\_quantity by Quarter



**Q3**

- The least number of units were sold
- Month(03,04,05)

**Q2**

- Approximately, most units were sold noticeably
- Month(12,01,02)

**Q1**

- The largest number of units were sold, hence it being the most important quarter for Atliq
- Month(09,10,11)



09

## Percentage of Contribution

Which channel helped to bring more gross sales in the fiscal year 2021 and the percentage of contribution?

# channels

## Distributor

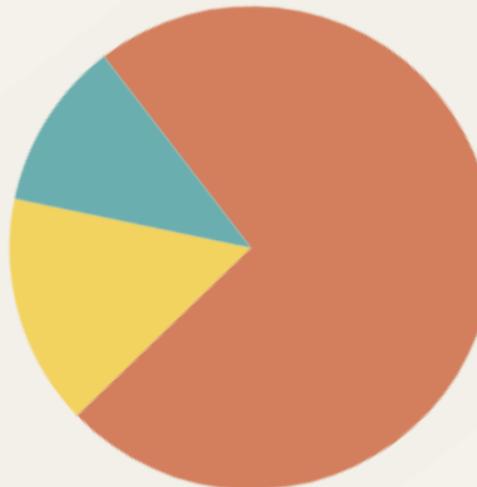
Lowest contributions to gross sales

11.3%

## Direct

More contribution to gross sales than distributor, although not by a large margin

15.47%



## Retailer

Retailers contributed to most of the total sales, making them the most significant channel for Atliq



# 10

## Top 3 products

Get the Top 3 products in each division that have a high total\_sold\_quantity in the fiscal year 2021?

# Report

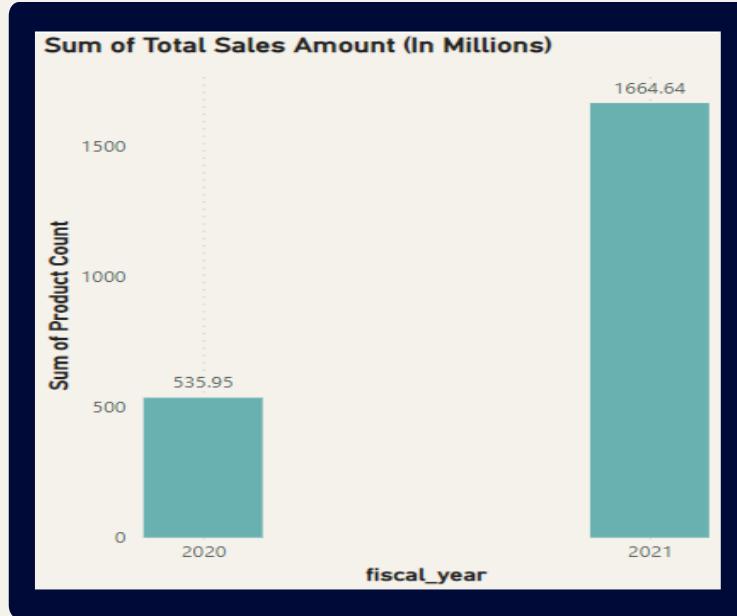
## Insight

- The most notable products sold are those in the "N & S" (Network and Storage) division
- The upper variant (Premium, Plus) of the product was the most popular among customers
- Products in the PC(Personal Computer). division have the lowest sales
- The most popular product was the 'AQ Pen Drive 2 in 1', which was sold in around 0.7 million units

division	product	rank_order	variant	total
N & S	AQ Pen Drive 2 IN 1	1	Premium	701373
N & S	AQ Pen Drive DRC	2	Plus	688003
N & S	AQ Pen Drive DRC	3	Premium	676245
P & A	AQ Gamers Ms	1	Standard 2	428498
P & A	AQ Maxima Ms	2	Standard 1	419865
P & A	AQ Maxima Ms	3	Plus 2	419471
PC	AQ Digit	1	Standard Blue	17434
PC	AQ Velocity	2	Plus Red	17280
PC	AQ Digit	3	Premium Misty Green	17275

# Total Sales

In comparison to the previous year, Atliq's gross revenue increased by **210%** in 2021, demonstrating the company's growth



# SQL Queries

## Query - 1

```
SELECT DISTINCT( market )
FROM    dim_customer
WHERE   region = "apac"
        AND customer = "atliq exclusive";
```

## Output

	market
▶	India
	Indonesia
	Japan
	Philippines
	South Korea
	Australia
	Newzealand
	Bangladesh

# SQL Queries

## Output

	unique_products_2020	unique_products_2021	percentage_chg
▶	245	334	36.33%

## Query - 2

```
WITH pro_2020 AS
(SELECT count(distinct(product_code)) AS unique_products_2020
FROM fact_sales_monthly
WHERE fiscal_year = 2020),
pro_2021 AS
(SELECT count(distinct(product_code)) AS unique_products_2021
FROM fact_sales_monthly
WHERE fiscal_year = 2021)
SELECT p1.unique_products_2020,
p2.unique_products_2021,
Concat(Round(((p2.unique_products_2021 - p1.unique_products_2020) / p1.unique_products_2020) * 100, 2), '%') AS percentage_chg
FROM pro_2020 AS p1
CROSS JOIN pro_2021 AS p2;
```

# SQL Queries

## Query - 3

```
SELECT SEGMENT,  
       count(distinct(product_code)) AS product_count  
FROM dim_product  
GROUP BY SEGMENT  
ORDER BY product_count DESC;
```

## Output

	SEGMENT	product_count
▶	Notebook	129
	Accessories	116
	Peripherals	84
	Desktop	32
	Storage	27
	Networking	9

# SQL Queries

## Output

	SEGMENT	product_count_2020	product_count_2021	difference
▶	Accessories	69	103	34
	Notebook	92	108	16
	Peripherals	59	75	16
	Desktop	7	22	15
	Storage	12	17	5
	Networking	6	9	3

## Query - 4

```
WITH pro_2020 AS
    (SELECT pro.segment AS SEGMENT,
        count(DISTINCT pro.product_code) AS product_count_2020
    FROM dim_product AS pro
    JOIN fact_sales_monthly sales ON pro.product_code = sales.product_code
    WHERE sales.fiscal_year = 2020
    GROUP BY pro.segment
    ORDER BY product_count_2020 DESC),
    pro_2021 AS
    (SELECT pro.segment AS SEGMENT,
        count(DISTINCT pro.product_code) AS product_count_2021
    FROM dim_product AS pro
    JOIN fact_sales_monthly sales ON pro.product_code = sales.product_code
    WHERE sales.fiscal_year = 2021
    GROUP BY pro.segment
    ORDER BY product_count_2021 DESC)
SELECT p1.segment AS SEGMENT,
    p1.product_count_2020,
    p2.product_count_2021,
    (p2.product_count_2021 - p1.product_count_2020) AS difference
FROM pro_2020 AS p1
JOIN pro_2021 AS p2 ON p1.segment = p2.segment;
```

# SQL Queries

## Query - 5

```
SELECT pro.product_code,
       pro.product,
       cost.manufacturing_cost
  FROM dim_product AS pro
 JOIN fact_manufacturing_cost AS cost ON pro.product_code = cost.product_code
 WHERE cost.manufacturing_cost IN
       (SELECT MAX(cost.manufacturing_cost)
          FROM fact_manufacturing_cost AS cost )
      OR cost.manufacturing_cost IN
       (SELECT MIN(cost.manufacturing_cost)
          FROM fact_manufacturing_cost AS cost);
```

## Output

	product_code	product	manufacturing_cost
▶	A2118150101	AQ Master wired x1 Ms	0.8920
	A6120110206	AQ HOME Allin1 Gen 2	240.5364

# SQL Queries

## Output

	customer_code	customer	average_discount_percentage
▶	90002009	Flipkart	30.83
	90002006	Viveks	30.38
	90002003	Ezone	30.28
	90002002	Croma	30.25
	90002016	Amazon	29.33

## Query - 6

```
SELECT fact.customer_code,
       customer,
       round(avg(pre_invoice_discount_pct)*100, 2) AS average_discount_percentage
  FROM dim_customer AS c
 JOIN fact_pre_invoice_deductions AS fact ON c.customer_code=fact.customer_code
 WHERE c.market="india"
       AND fact.fiscal_year =2021
 GROUP BY c.customer_code
 ORDER BY average_discount_percentage DESC
 LIMIT 5;
```

# SQL Queries

## Query - 7

```
SELECT left(monthname(fs.date), 3) AS MONTH,  
       fs.fiscal_year AS YEAR,  
       round(sum(fs.sold_quantity * fg.gross_price)/1000000, 2) AS 'Gross sales Amount (In Millions)'  
FROM fact_sales_monthly AS fs  
JOIN dim_customer AS ds ON fs.customer_code = ds.customer_code  
JOIN fact_gross_price AS fg ON fg.product_code = fs.product_code  
AND fg.fiscal_year = fs.fiscal_year  
WHERE customer = 'Atliq Exclusive'  
GROUP BY MONTH,  
        YEAR  
ORDER BY fs.date;
```

## Output

	MONTH	YEAR	Gross sales Amount (In Millions)
▶	Sep	2020	4.50
	Oct	2020	5.14
	Nov	2020	7.52
	Dec	2020	4.83
	Jan	2020	4.74
	Feb	2020	4.00
	Mar	2020	0.38
	Apr	2020	0.40
	May	2020	0.78
	Jun	2020	1.70
	Jul	2020	2.55
	Aug	2020	2.79
	Sep	2021	12.35
	Oct	2021	13.22
	Nov	2021	20.46
	Dec	2021	12.94
	Jan	2021	12.40
	Feb	2021	10.13
	Mar	2021	12.14
	Apr	2021	7.31
	May	2021	12.15
	Jun	2021	9.82
	Jul	2021	12.09
	Aug	2021	7.18

# SQL Queries

## Output

	Quarter	total_sold_quantity
▶	Q3	2075087
	Q4	5042541
	Q2	6649642
	Q1	7005619

## Query - 8

```
WITH result
      AS (SELECT *,
                  CASE
                      WHEN date BETWEEN '2019-09-01' AND '2019-11-01' THEN 'Q1'
                      WHEN date BETWEEN '2019-12-01' AND '2020-02-01' THEN 'Q2'
                      WHEN date BETWEEN '2020-03-01' AND '2020-05-01' THEN 'Q3'
                      WHEN date BETWEEN '2020-06-01' AND '2020-08-01' THEN 'Q4'
                  END AS Quarter
             FROM fact_sales_monthly
            WHERE fiscal_year = 2020)
SELECT r.quarter,
       Sum(r.sold_quantity) AS total_sold_quantity
      FROM result AS r
     GROUP BY r.quarter
    ORDER BY total_sold_quantity;
```

# SQL Queries

## Query - 9

```
WITH result_1
AS (SELECT ds.channel AS channel,
           Concat(Round(Sum(fs.sold_quantity * fp.gross_price) / 1000000, 2), "m") AS gross_sales_mln
  FROM dim_customer AS ds
       JOIN fact_sales_monthly AS fs
             ON ds.customer_code = fs.customer_code
       JOIN fact_gross_price AS fp
             ON fp.fiscal_year = fs.fiscal_year
               AND fp.product_code = fs.product_code
  WHERE fs.fiscal_year = 2021
  GROUP BY ds.channel
  ORDER BY gross_sales_mln),
result_2
AS (SELECT Concat(Round(Sum(fs.sold_quantity * fp.gross_price) / 1000000, 2), "m") AS total_gross_sales_mln
  FROM dim_customer AS ds
       JOIN fact_sales_monthly AS fs
             ON ds.customer_code = fs.customer_code
       JOIN fact_gross_price AS fp
             ON fp.fiscal_year = fs.fiscal_year
               AND fp.product_code = fs.product_code
  WHERE fs.fiscal_year = 2021)
SELECT r1.channel,
       r1.gross_sales_mln,
       Concat(Round((r1.gross_sales_mln / r2.total_gross_sales_mln) * 100, 2), "%") AS percentage
  FROM result_1 AS r1,
       result_2 AS r2
 ORDER BY percentage;
```

## Output

	channel	gross_sales_mln	percentage
▶	Distributor	188.03 M	11.3%
	Direct	257.53 M	15.47%
	Retailer	1219.08 M	73.23%

# SQL Queries

## Output

division	product_code	product	variant	total	rank_order
N & S	A6720160103	AQ Pen Drive 2 IN 1	Premium	701373	1
N & S	A6818160202	AQ Pen Drive DRC	Plus	688003	2
N & S	A6819160203	AQ Pen Drive DRC	Premium	676245	3
P & A	A2319150302	AQ Gamers Ms	Standard 2	428498	1
P & A	A2520150501	AQ Maxima Ms	Standard 1	419865	2
P & A	A2520150504	AQ Maxima Ms	Plus 2	419471	3
PC	A4218110202	AQ Digit	Standard Blue	17434	1
PC	A4319110306	AQ Velocity	Plus Red	17280	2
PC	A4218110208	AQ Digit	Premium Misty Green	17275	3

## Query - 10

```
WITH result
      AS (SELECT division,
                 dp.product_code      AS product_code,
                 product,
                 variant,
                 Sum(sold_quantity) AS total
            FROM fact_sales_monthly AS fs
           JOIN dim_product AS dp
             ON fs.product_code = dp.product_code
           WHERE fs.fiscal_year = 2021
           GROUP BY dp.product_code)
SELECT *
  FROM (SELECT division,
              r.product_code,
              product,
              variant,
              total,
              Dense_rank()
                OVER(
                  partition BY r.division
                  ORDER BY total DESC) AS rank_order
         FROM result AS r) AS final_result
WHERE final_result.rank_order < 4;
```



**Thanks!**