# GONSUMER GOOS AD-HOG INSIGHTS

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# **OBJECTIVES**

- AtliQ Hardwares is one of the leading computer hardware manufacturers in India, operating globally. However, their leadership noticed a gap — they were not getting timely and sufficient insights to make quick and smart business decisions.
- To address this, they created 10 ad-hoc business requests. My task was to answer each request using SQL and present the results visually for top-level management."



## ABOUT COMPANY

#### **CATEGORY** :-

- External Solid State Drives
- Gaming Laptop
- Business Laptop
- Graphic Card
- Internal HDD
- Keyboard
- Motherboard
- Personal Desktop
- Personal Laptop
- Processors
- USB Flash Drives
- Wi fi Extender
- Mouse
- Batteries

#### **SEGEMENT:-**

- Accessories
- Desktop
- Networking
- Notebook
- Peripherals
- Storage

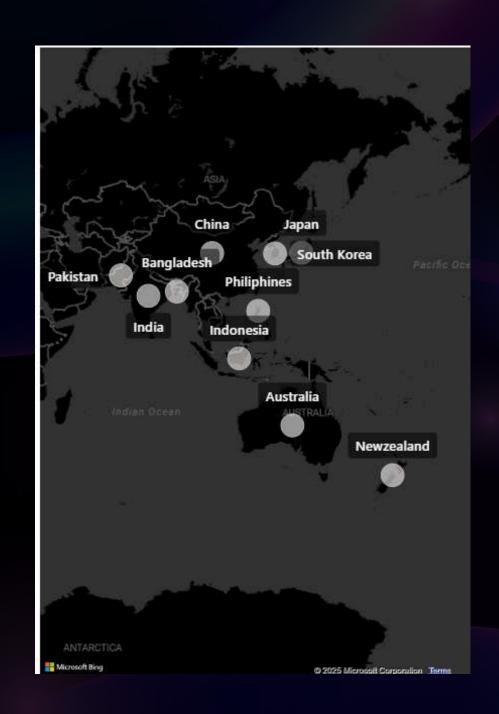
#### **DIVISION** :-

- N&S
- P&A
- PC

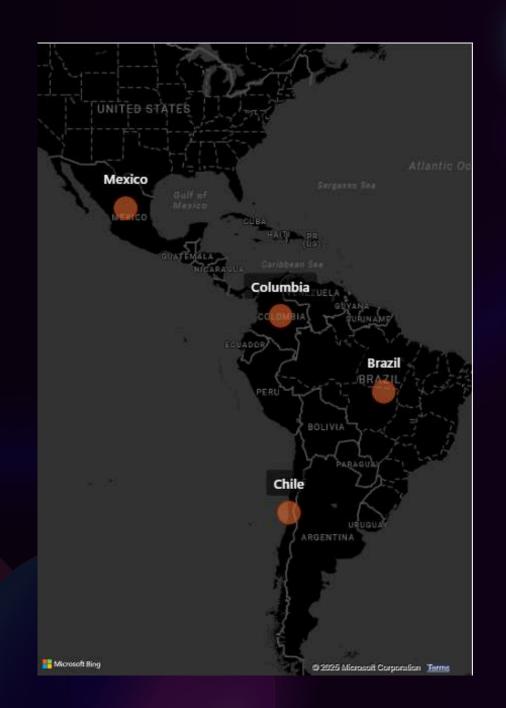
Fiscal Year
September 2019 - August 2020
FY - 2020
September 2020 - August 2021
FY - 2021



# COMPANY'S MARKET





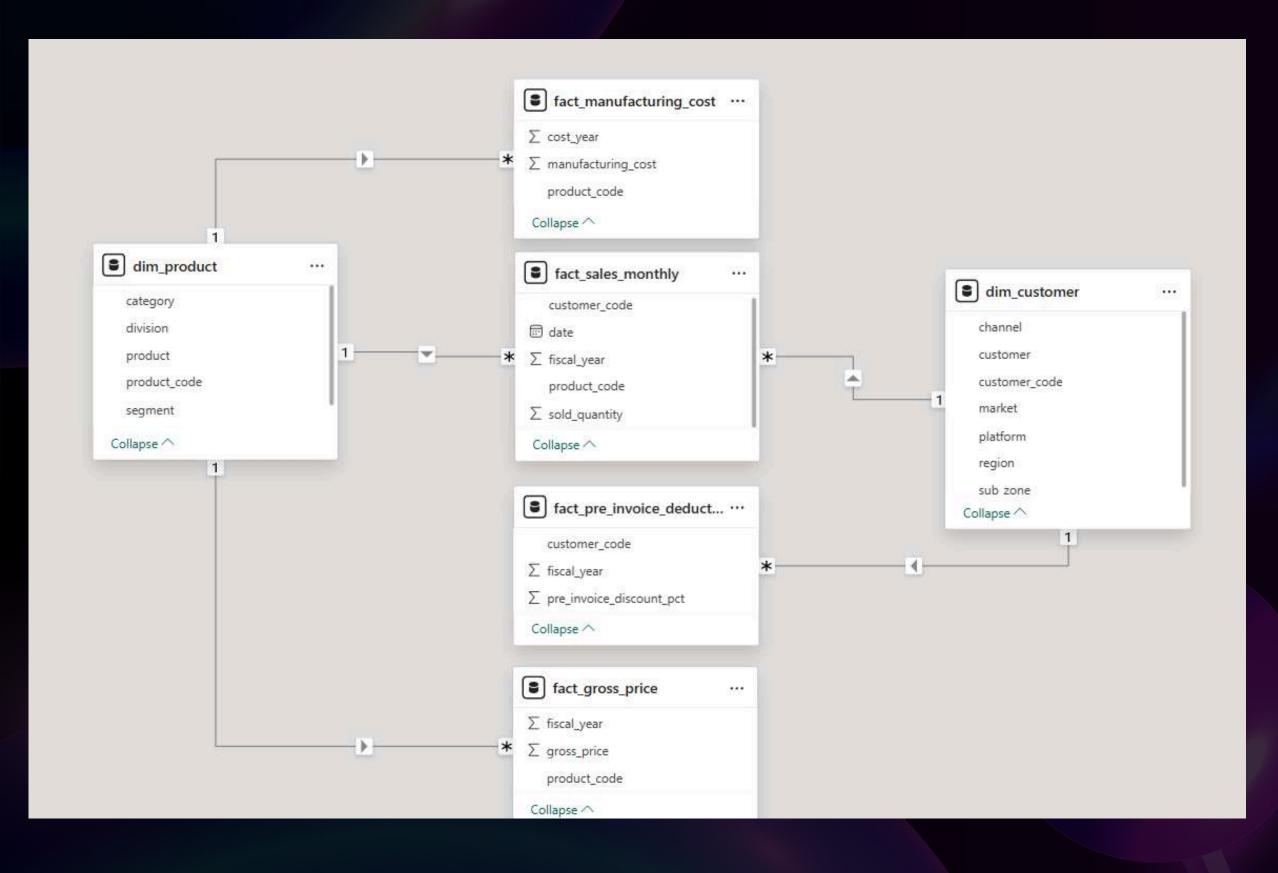




APAC EU LATAM NA



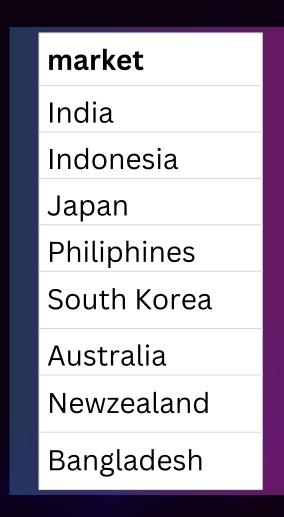
### DATASETS



 These are the datasets I used. They include product, customer, cost, and discounts. Together, they form a complete data model for analysis. 1. Provide the list of markets in which customer "Atliq Exclusive" operates its business in the APAC region.



select distinct market from dim\_customer
where customer = "Atliq Exclusive" and
 region = "APAC";



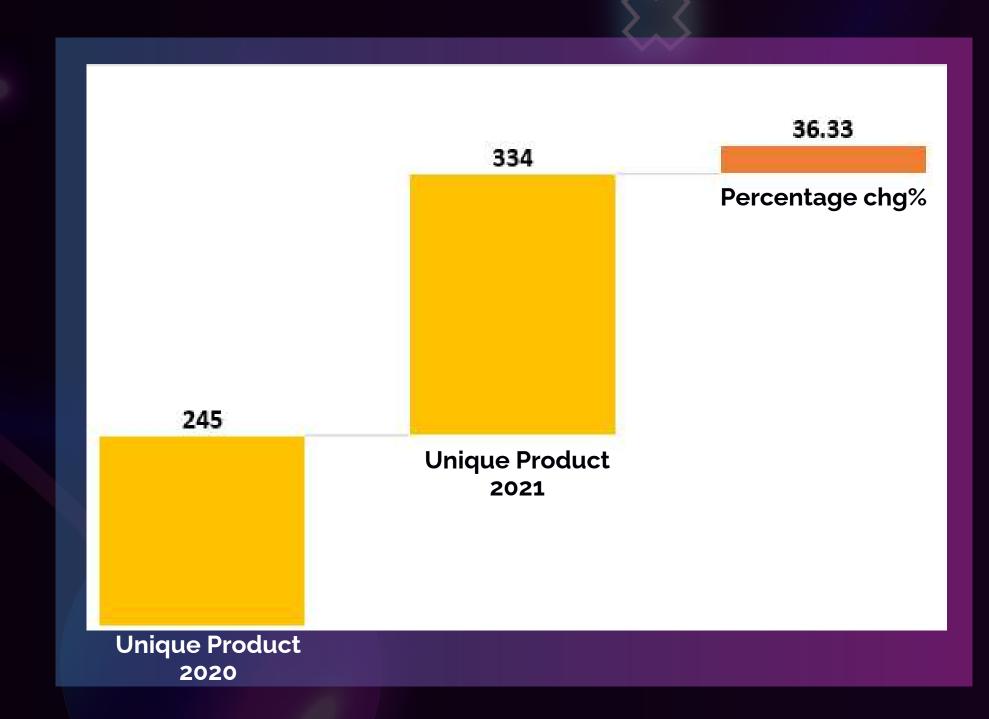
• This shows that AtliQ Exclusive has a strong presence across both developed and emerging APAC markets, giving opportunities to design region-specific strategies.

#### 2. What is the percentage of unique product increase in 2021 vs. 2020?

```
WITH cte AS (SELECT
      COUNT(DISTINCT product_code) AS count_2020
  FROM fact_sales_monthly
  WHERE fiscal_year = 2020),
⊖ cte1 AS (SELECT
      COUNT(DISTINCT product_code) AS count_2021
  FROM fact_sales_monthly
  WHERE fiscal_year = 2021)
  SELECT
      cte.count_2020,
      ctel.count_2021,
@ ROUND(
      ((cte1.count_2021- cte.count_2020)*100/ cte.count_2020),2)
      AS percentage_chg
  FROM cte, ctel;
```

count_2020	count_2021	percentage_chg
245	334	36.33

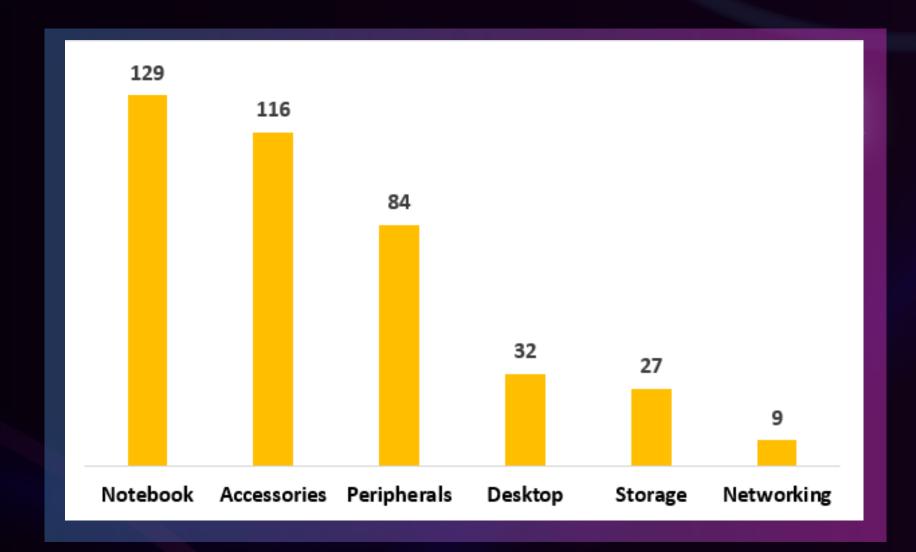
- In 2021, the number of unique products sold grew by 36.33%, rising from 245 to 334.
- This shows that the company expanded its product range, possibly by adding new items, entering new markets, or launching targeted products.
- Having more variety gives customers more choices and helps the brand reach more people.



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



segment	unique_product
Notebook	129
Accessories	116
Peripherals	84
Desktop	32
Storage	27
Networking	9



 Notebook and Accessories lead in variety, while Networking and Storage have the least product range, indicating potential growth opportunities in these segments. 4. Which segment had the most increase in unique products in 2021 vs 2020?

```
SELECT p.segment,s.fiscal_year,COUNT(DISTINCT s.product_code) AS product_count_20
   FROM fact_sales_monthly s
   join dim product p
   on p.product_code = s.product_code
       s.fiscal_year=2020
   GROUP BY p.segment, s.fiscal_year),
 ctel as (SELECT p.segment,s.fiscal year,COUNT(DISTINCT s.product code) AS product count 21
   FROM fact sales monthly s
   join dim product p
   on p.product_code = s.product_code
       s.fiscal year=2021
   GROUP BY p.segment, s.fiscal_year)
SELECT ctel.segment,
       cte.product_count_20,
       cte1.product_count_21,
       ABS(cte1.product_count_21-cte.product_count_20) AS abs_difference,
       ROUND(((ABS(cte1.product_count_21-cte.product_count_20))*100/ABS( cte.product_count_20)),2)
   FROM cte join ctel
   on cte.segment = ctel.segment
   ORDER BY abs_difference DESC
```

segment	product_count_20	product_count_21	abs_difference	abs_percentage_chg
Accessories	69	103	34	49.28
Notebook	92	108	16	17.39
Peripherals	59	75	16	27.12
Desktop	7	22	15	214.29
Storage	12	17	5	41.67
Networking	6	9	3	50.00

- Accessories segment experienced the highest absolute increase in unique products, growing from 69 in 2020 to 103 in 2021, an addition of 34 products. This reflects consistent product diversification in this category.
- Desktop segment, although smaller in size, showed the most remarkable percentage growth of 214%, expanding from 7 to 22 products, indicating a strong strategic push or new product launches in this category.

#### 5. Get the products that have the highest and lowest manufacturing costs.

```
select p.product,m.manufacturing_cost
from dim_product p
join fact_manufacturing_cost m
on p.product_code = m.product_code
where m.manufacturing_cost=(select max(m.manufacturing_cost) from dim_product p
join fact_manufacturing_cost m
on p.product_code = m.product_code)
union
select p.product,m.manufacturing_cost
from dim_product p
join fact_manufacturing_cost m
on p.product_code = m.product_code
where m.manufacturing_cost=(select min(m.manufacturing_cost) from dim_product p
join fact_manufacturing_cost m
on p.product_code = m.product_code);
```

product	manufacturing_cost
AQ HOME Allin 1 Gen 2	240.5364
AQ Master wired x1 Ms	0.8920

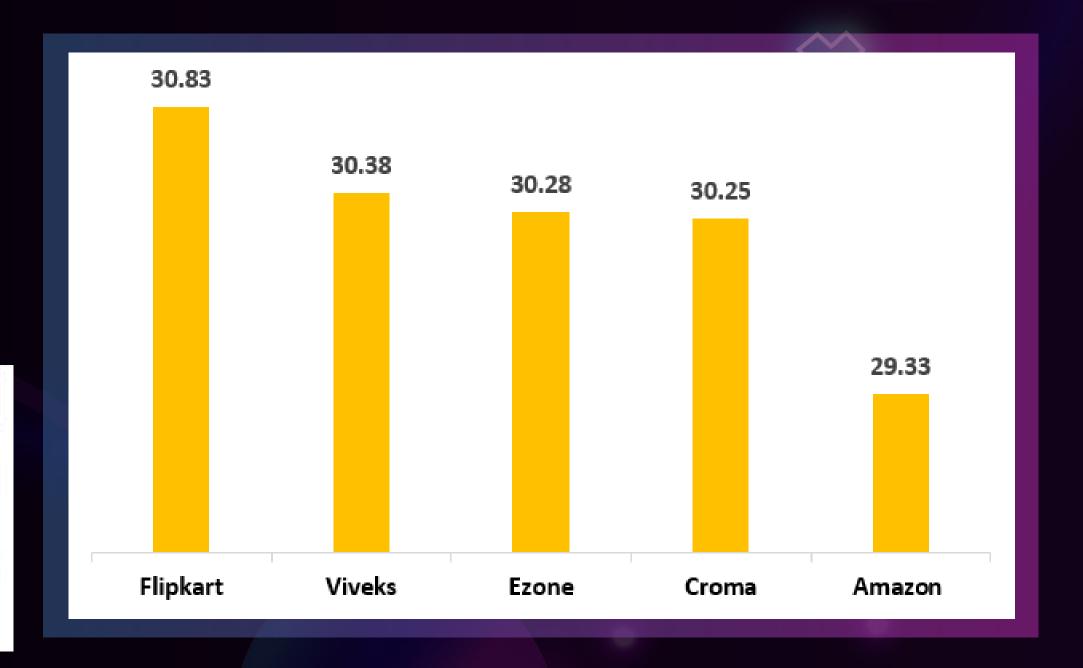
- The product AQ HOME Allin1 Gen 2 has the highest manufacturing cost at 240.53, which means it's likely a premium product that requires expensive materials or complex production.
- On the other hand, AQ Master wired x1 Ms has the lowest cost at 0.89, making it a very affordable product to produce and potentially very profitable if priced well.



6. 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.

```
select c.customer,c.customer_code,
round(avg(pre_invoice_discount_pct)*100,2) as avg_pre_invoice
from dim_customer c
join fact_pre_invoice_deductions i
on c.customer_code = i.customer_code
where i.fiscal_year = 2021 and market = "India"
group by c.customer,c.customer_code
order by avg_pre_invoice desc
limit 5;
```

	customer	customer_code	avg_pre_invoice
b	Flipkart	90002009	30.83
,	Viveks	90002006	30.38
	Ezone	90002003	30.28
	Croma	90002002	30.25
	Amazon	90002016	29.33



- Flipkart received the highest discount percentage at 30.83%, followed closely by Viveks, Ezone, and Croma, all above 30%, while Amazon had the lowest among the top five at 29.33%.
- This tells us which customers are getting the most price advantage before invoicing."

7.Get the complete report of the Gross sales amount for the customer "Atliq Exclusive" for each month.

```
select date_format(s.date,"%Y-%m") as month_name,
sum(g.gross_price*s.sold_quantity) as total_gross_price
from dim_customer c
join fact_sales_monthly s
on c.customer_code = s.customer_code
join fact_gross_price g
on s.product_code = g.product_code and s.fiscal_year = g.fiscal_year
where c.customer = "Atliq Exclusive"
group by date_format(s.date,"%Y-%m")
order by month_name;
```

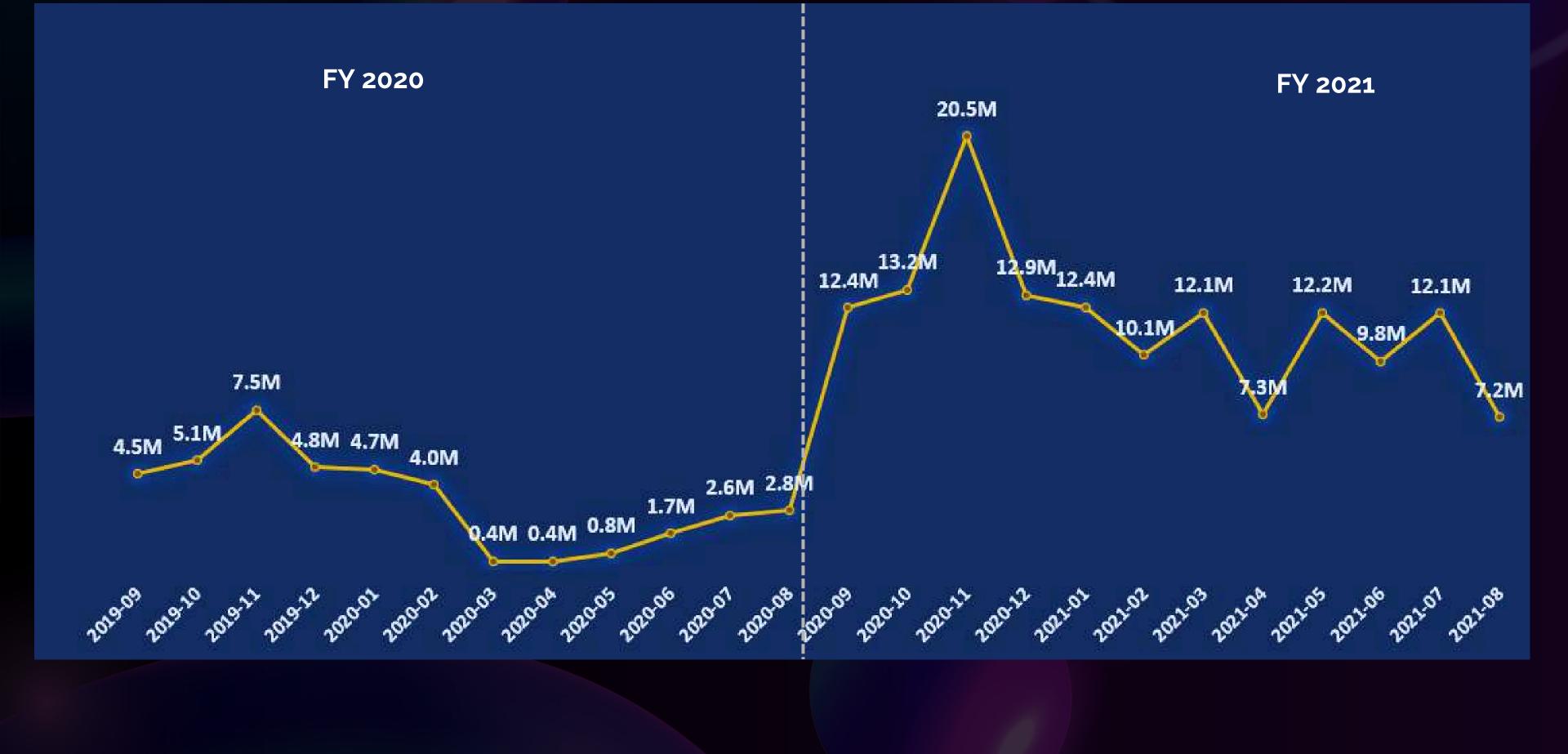


- Sales peaked in September 2020 at 12.35M, indicating a strong seasonal demand.
- April 2020 saw the lowest sales at 0.39M
- FY 2021 shows more consistent high-value months compared to FY 2020.

month_name	total_gross_price
2019-09	4496259.6724
2019-10	5135902.3467
2019-11	7522892.5608
2019-12	4830404.7285
2020-01	4740600.1605
2020-02	3996227.7661
2020-03	378770.9700
2020-04	395035.3535
2020-05	783813.4238
2020-06	1695216.6008
2020-07	2551159.1584
2020-08	2786648.2601
2020-09	12353509.7938
2020-10	13218636.1966
2020-11	20464999.0997
2020-12	12944659.6509
2021-01	12399392.9788
2021-02	10129735.5675
2021-03	12144061.2501
2021-04	7311999.9547
2021-05	12150225.0139
2021-06	9824521.0110
2021-07	12092346.3245
2021-08	7178707.5902

**FY 2020** 

**FY 2021** 



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

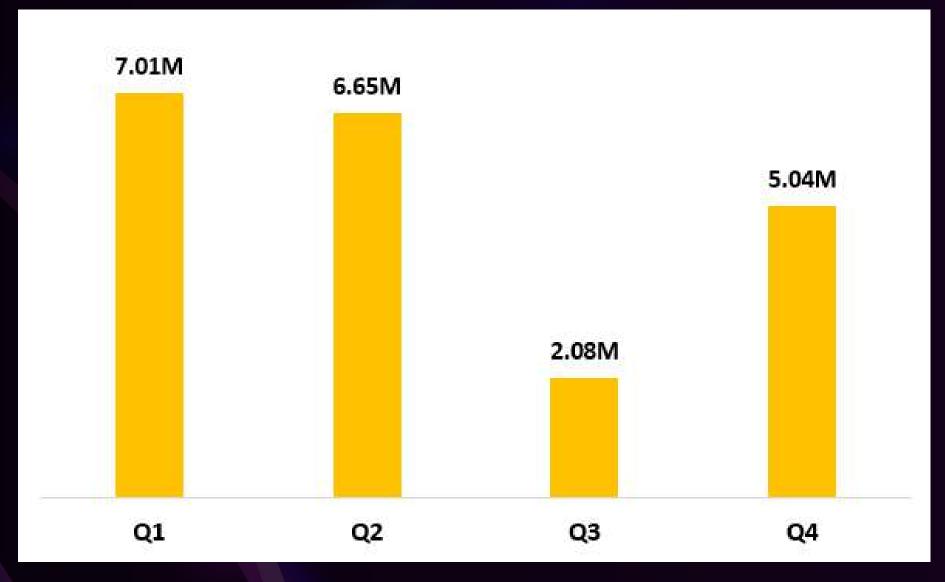
```
select
    case
    when month(date) in (9,10,11) then concat("Q",1)
    when month(date) in (12,1,2) then concat("Q",2)
    when month(date) in (3,4,5) then concat("Q",3)
    else concat("Q",4)
    end as quarter_num,
sum(sold_quantity) as total_sold_quantity
from fact_sales_monthly
where fiscal_year = 2020
group by quarter_num
order by quarter_num;
```



	quarter_num	total_sold_quantity
Þ	Q1	7005619
	Q2	6649642
	Q3	2075087
	Q4	5042541



In 2020, sales peaked in Q1 with 7.01M units, showing strong market demand at the start of the year. Q2 remained high at 6.65M, but Q3 saw a sharp drop to 2.08M, largely due to COVID-19 restrictions impacting production and distribution. Q4 showed signs of recovery, climbing back to 5.04M units.

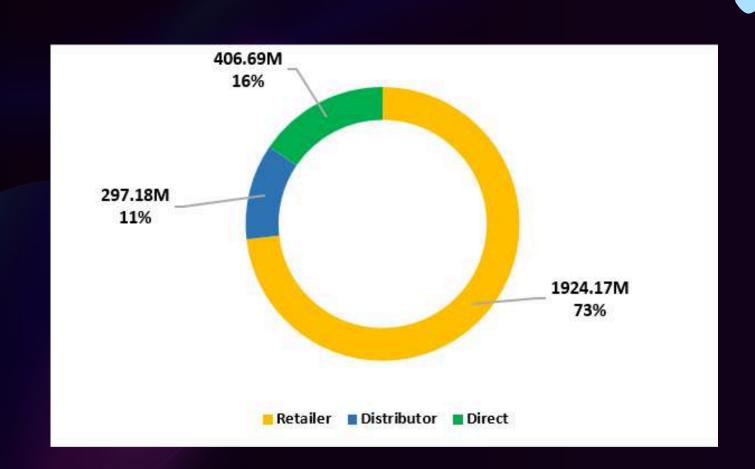


9. Which channel helped to bring more gross sales in the fiscal year 2021 and the percentage of contribution?



	channel	gross_sale_mln	pct_contribution
*	Retailer	1924. 17M	73.22
	Distributor	297.18M	11.31
	Direct	406.69M	15.48

In 2021, the Retailer channel was the major revenue driver, generating 1924.17M in sales, which accounted for a massive 73% of total gross sales. Direct sales contributed 16% (406.69M), while Distributors brought in 11% (297.18M). This indicates that strengthening retailer partnerships could further boost overall revenue."



#### 10. Get the Top 3 products in each division that have a high total\_sold\_quantity in the fiscal\_year 2021?

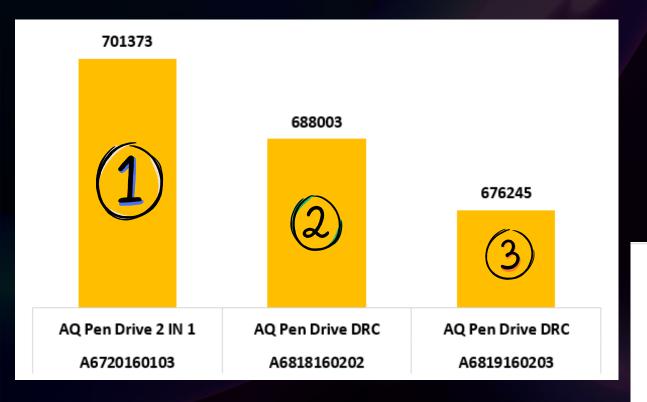
```
with cte as (select p.division , p.product_code,p.product,
sum(s.sold_quantity) as total_sold_quantity,
dense_rank() over (partition by division order by sum(s.sold_quantity) desc ) as rnk
from dim_product p
join fact_sales_monthly s
on p.product_code = s.product_code
where fiscal_year = 2021
group by p.division , p.product,p.product_code)
select division,product_code,product,total_sold_quantity
from cte
where rnk<=3
order by total_sold_quantity desc;</pre>
```



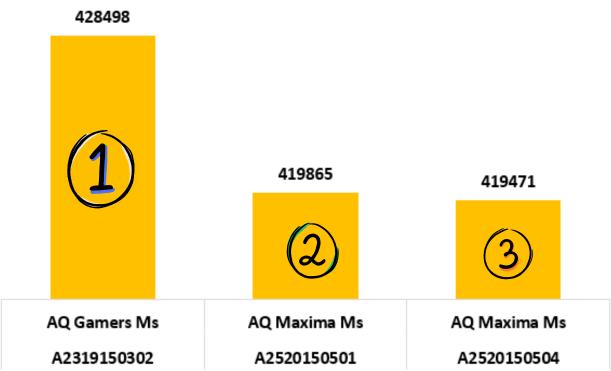
division	product_code	product	total_sold_quantity
N&S	A6720160103	AQ Pen Drive 2 IN 1	701373
N & S	A6818160202	AQ Pen Drive DRC	688003
N & S	A6819160203	AQ Pen Drive DRC	676245
P&A	A2319150302	AQ Gamers Ms	428498
P&A	A2520150501	AQ Maxima Ms	419865
P&A	A2520150504	AQ Maxima Ms	419471
PC	A4218110202	AQ Digit	17434
PC	A4319110306	AQ Velocity	17280
PC	A4218110208	AQ Digit	17275

- N & S division leads with high-volume products, especially pen drives, indicating strong demand for storage solutions.
- P & A division performs well with gaming and multimedia products.
- PC division has lower total sold quantities, signaling a possible need for product or sales strategy improvement.

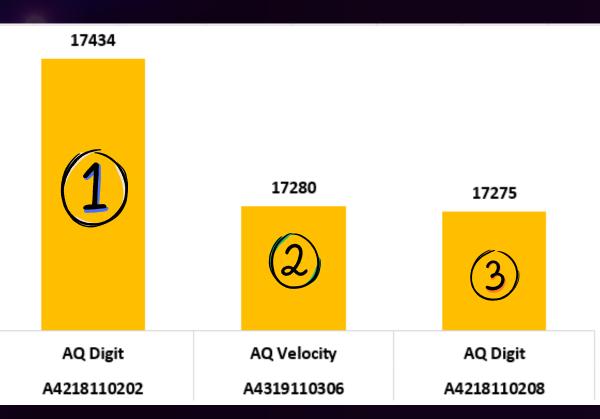
#### N & S













## RECOMMENDATIONS

#### **Expand Low-Variety Categories**

• Introduce more products in Networking and Storage, as these have the smallest range. This can help capture untapped market demand.

#### Leverage High-Growth Segments

 Continue investing in Desktop (214% YoY growth) and Accessories (+34 products) since they show strong market potential.

#### Optimize Discount Strategy

• Reassess high average discounts for top customers like Flipkart, Viveks, and Ezone to protect profit margins while maintaining loyalty.

#### Capitalize on Peak Sales Months

• Plan bigger marketing campaigns and inventory build-up for November–January, as this period consistently drives the highest sales.

#### Focus on Best-Selling Products

• Ensure uninterrupted supply and explore cross-selling for top products like AQ Pen Drive 2 IN 1, AQ Gamers Ms, and AQ Digit.

#### Balance Manufacturing Costs

• For high-cost products (AQ HOME Allin1 Gen 2), explore cost optimization or premium positioning to improve margins.



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