



Atliq Hardware

Consumer Goods Ad – hoc Insights

Presented By: Amit Kumar

AGENDA

- ❑ Introduction
- ❑ Objective
- ❑ About Data
- ❑ Ad-hoc requests along with the queried results, visualisations and Insights

Introduction

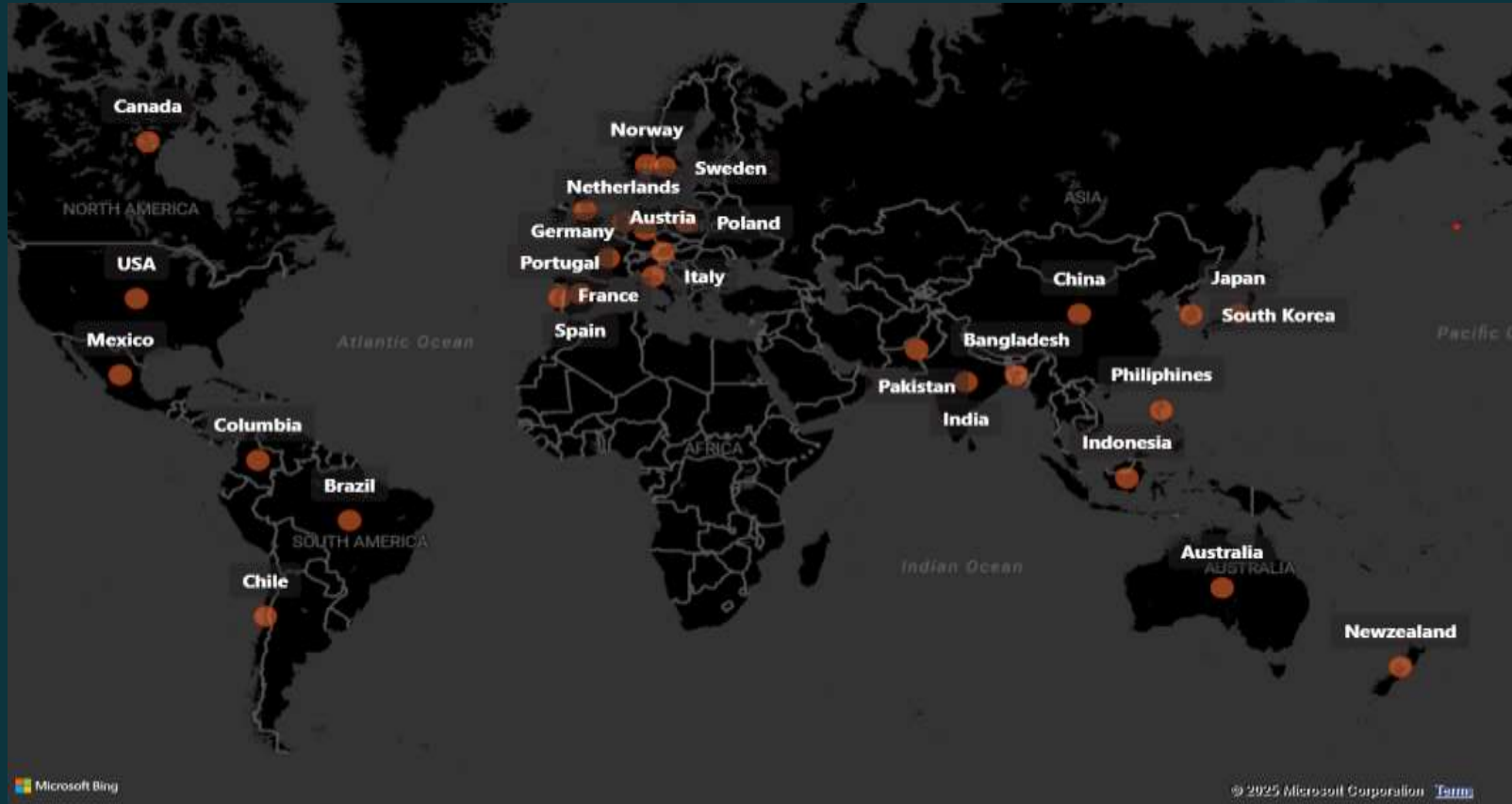
ATLIQ Hardware(imaginary company), one of the leading computer hardware producers in India with customers from across the globe, want to get insights on company product sales to make data-informed decisions.

Objective

- ❑ Assist the management team to gain more insights about the business
- ❑ Take data-driven decisions to scale business
- ❑ There are 10 Ad-hocs for which the company needs insights.

About Data

- ❑ The company uses 4 fact tables to track key business metrics—monthly sales, manufacturing costs, pre-invoice deductions, and gross price. Additionally, there are 2 dimension tables containing customer and product details.
- ❑ Atliq Hardware's financial year runs from September 1st to August 31st each year.
- ❑ Sales data is available for the 2020-2021 fiscal year.



ATLIQ Hardware operates in **27 countries** across **North America (NA)**, **Latin America (LATAM)**, **Europe (EU)**, and the **Asia-Pacific (APAC)** region.

Insights

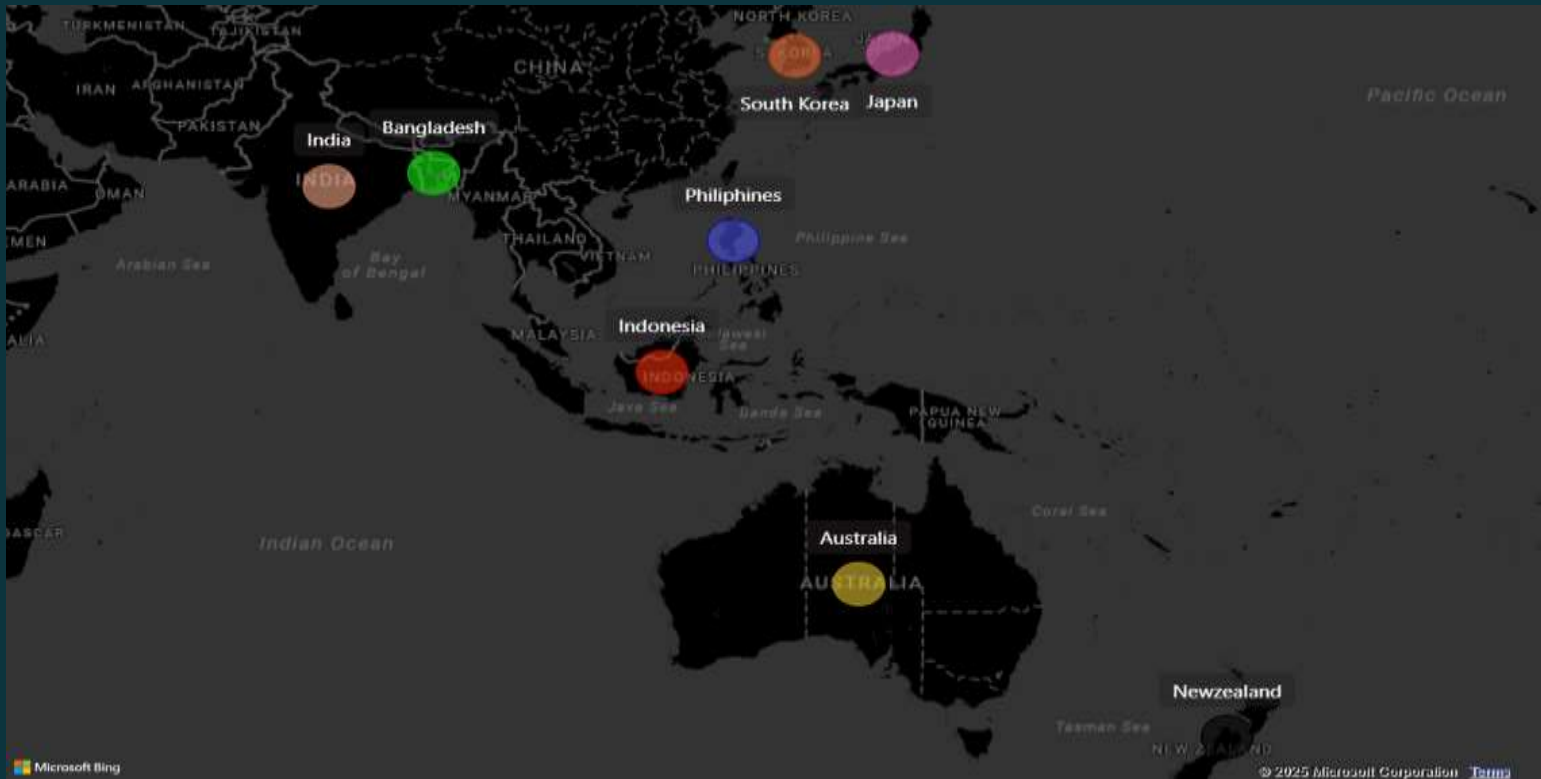
Request 1: Provide the list of markets in which customer "Atliq Exclusive" operates its business in the APAC region

Query:

```
Select  
  
distinct Market  
  
from dim_customer  
  
where  
  
customer = "Atliq Exclusive"  
  
and region = "APAC"
```

Solution:

	Market
▶	India
	Indonesia
	Japan
	Philippines
	South Korea
	Australia
	Newzealand
	Bangladesh



Insights :

- ❑ **ATLIQ Exclusive** runs its business in **8 key markets** across the **Asia-Pacific (APAC)** region.
- ❑ It has the **highest number of stores in APAC**, followed by **Europe (6 stores)** and **North America (2 stores)**

Insights

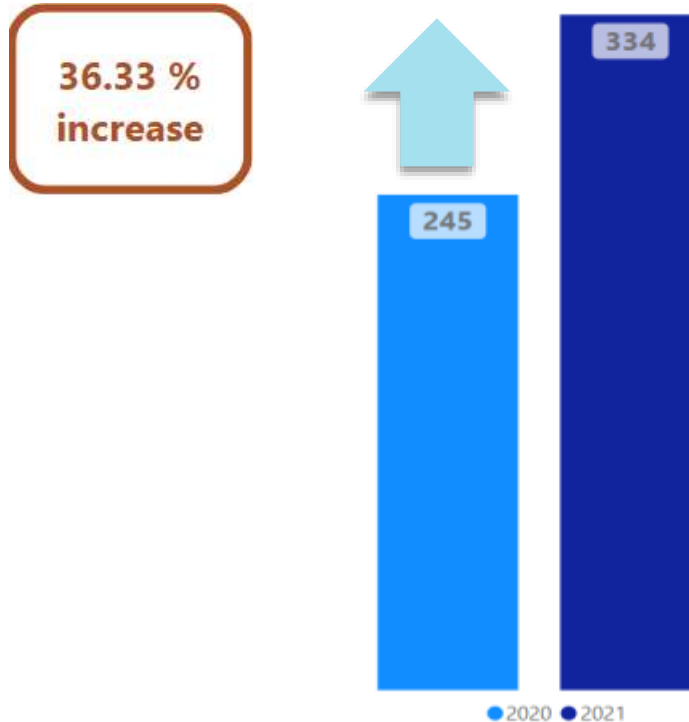
Request 2: Compare the unique product counts between 2020 and 2021. Calculate the percentage change and present the analysis.

Query:

```
with unique_cnt as (  
    SELECT  
        s.fiscal_year,  
        count(distinct s.product_code) as  
        unique_product_cnt  
    FROM gdb023.dim_product p  
    join fact_sales_monthly s  
    on p.product_code = s.product_code  
    where s.fiscal_year in (2020,2021)  
    group by s.fiscal_year )  
SELECT  
    up_2020.unique_product_cnt as unique_product_2020,  
    up_2021.unique_product_cnt as unique_product_2021,  
    round((up_2021.unique_product_cnt -  
    up_2020.unique_product_cnt)/up_2020.unique_product_cnt * 100.2)  
    as percentage_change  
from unique_cnt up_2020  
join unique_cnt up_2021  
where up_2020.fiscal_year = 2020 AND up_2021.fiscal_year = 2021;
```

Solution:

	unique_product_2020	unique_product_2021	percentage_change
▶	245	334	36.33



Insights :

ATLIQ Hardware is growing fast. With a **36.33% increase** in new products, its total count rise from **245 in FY 2020 to 334 in FY 2021**. This continuous innovation is strengthening its reputation by meeting changing customer needs.

Insights

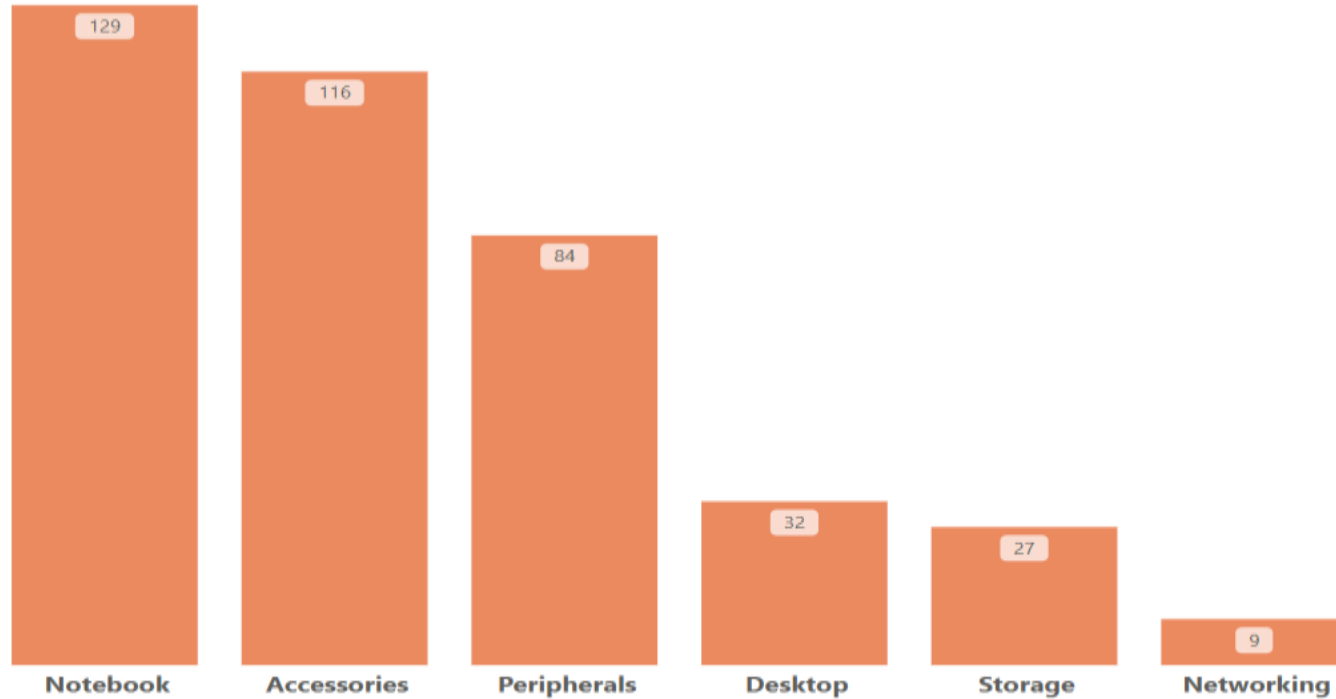
Request 3: Analyze the unique product counts for each segment. The results should be sorted in descending order of their counts.

Query:

```
select
    segment,
    count(distinct product_code) as
product_cnt
from dim_product
group by segment
order by product_cnt desc
```

Solution:

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



Insights :

- ❑ Notebooks, Accessories, and Peripherals make up **83% of total production**, averaging **110 products per segment**, while Desktops, Storage, and Networking lag at **23 products per segment**.
- ❑ The **Product Development team** should redesign products to modern standards, and **continuous innovation** will keep ATLQ ahead in the market.

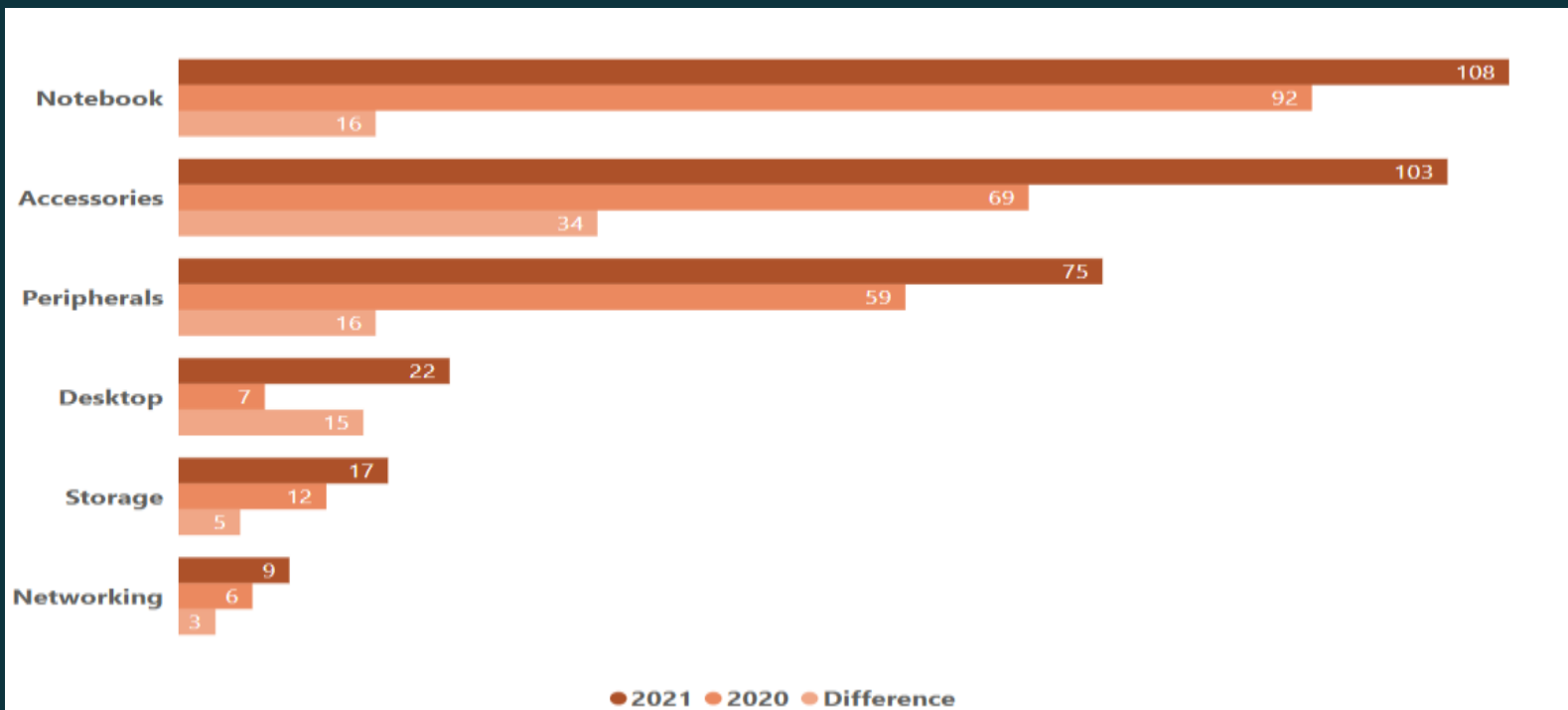
Insights

Request 4: Determine which segment had the most significant increase in unique products from 2020 to 2021.

```
Query:
with unique_product_segment as(
    select
        p.segment, s.fiscal_year,
        count(distinct p.product_code) as product_cnt
    from dim_product p
    join fact_sales_monthly s
    on p.product_code = s.product_code
    where s.fiscal_year in (2020,2021)
    group by p.segment, s.fiscal_year
)
select
    pc_2020.segment,
    pc_2020.product_cnt as unique_product_2020,
    pc_2021.product_cnt as unique_product_2021,
    round((pc_2021.product_cnt - pc_2020.product_cnt),2) as difference
FROM unique_product_segment pc_2020
JOIN unique_product_segment pc_2021
ON pc_2020.segment = pc_2021.segment
WHERE pc_2020.fiscal_year = 2020 AND pc_2021.fiscal_year = 2021
order by difference desc;
```

Solution:

	segment	unique_product_2020	unique_product_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



Insights :

- ❑ The **Accessories** segment saw the **largest increase** with **34 new products**, while Notebooks and Peripherals added **16 each**.
- ❑ The **Networking** segment **lags** with **only 3 new products** since 2020, while the **Desktop** segment **improved** from **7 to 22 products**.

Insights

Request 5: Identify the products with the highest and lowest manufacturing costs. Include their respective details and highlight the findings.

```
Query:
(
SELECT
    p.product_code,
    p.product,
    Round(MIN(m.manufacturing_cost),2) as    manufacturing_cost
FROM gdb023.dim_product p
join fact_manufacturing_cost m
on p.product_code = m.product_code
group by p.product_code, p.product
order by manufacturing_cost asc limit 1)
union all
(
SELECT
    p.product_code,  p.product,
    Round(MAX(m.manufacturing_cost),2) as manufacturing_cost
FROM gdb023.dim_product p
join fact_manufacturing_cost m
on p.product_code = m.product_code
group by p.product_code, p.product
order by manufacturing_cost desc limit 1)
```

Solution:

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

Which of our products has the highest manufacturing cost?



AQ HOME Allin1 Gen 2 (Plus 3)

Category: Personal Desktop

\$240.54

Which of our products has the Lowest manufacturing cost?



AQ Master wired xl Ms (Standard I)

Category: Mouse

\$0.89

Insights

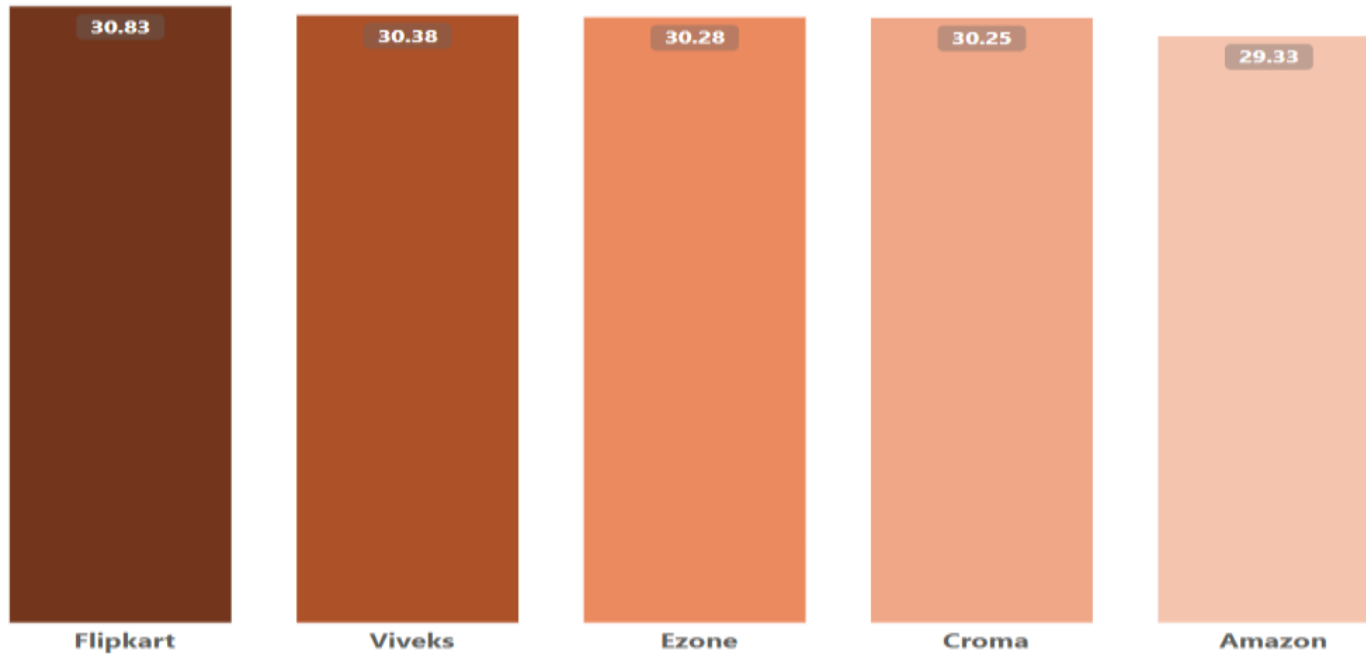
Request 6: Analyze the top 5 customers who received the highest average pre-invoice discount percentage for the fiscal year 2021 and in the Indian market.

Query:

```
select
    c.customer,
    round(avg(pi.pre_invoice_discount_pct),3) as
    avg_pre_invoice_discount_pct
from dim_customer c
Join fact_pre_invoice_deductions pi
on c.customer_code = pi.customer_code
where pi.fiscal_year = 2021
and c.market = "India"
group by
    c.customer_code,c.customer,c.market
order by
    avg_pre_invoice_discount_pct
desc limit 5
```

Solution:

	customer	avg_pre_invoice_discount_pct
►	Flipkart	0.308
	Viveks	0.304
	Croma	0.303
	Ezone	0.303
	Amazon	0.293



Insights:

- ❑ Flipkart received the **highest pre-invoice discount** at **30.83%**, making it the most discounted customer.
- ❑ The **top 5 customers** had an **average discount of 30.21%**, while the **overall market average in 2021** was **24.16%**.

Insights

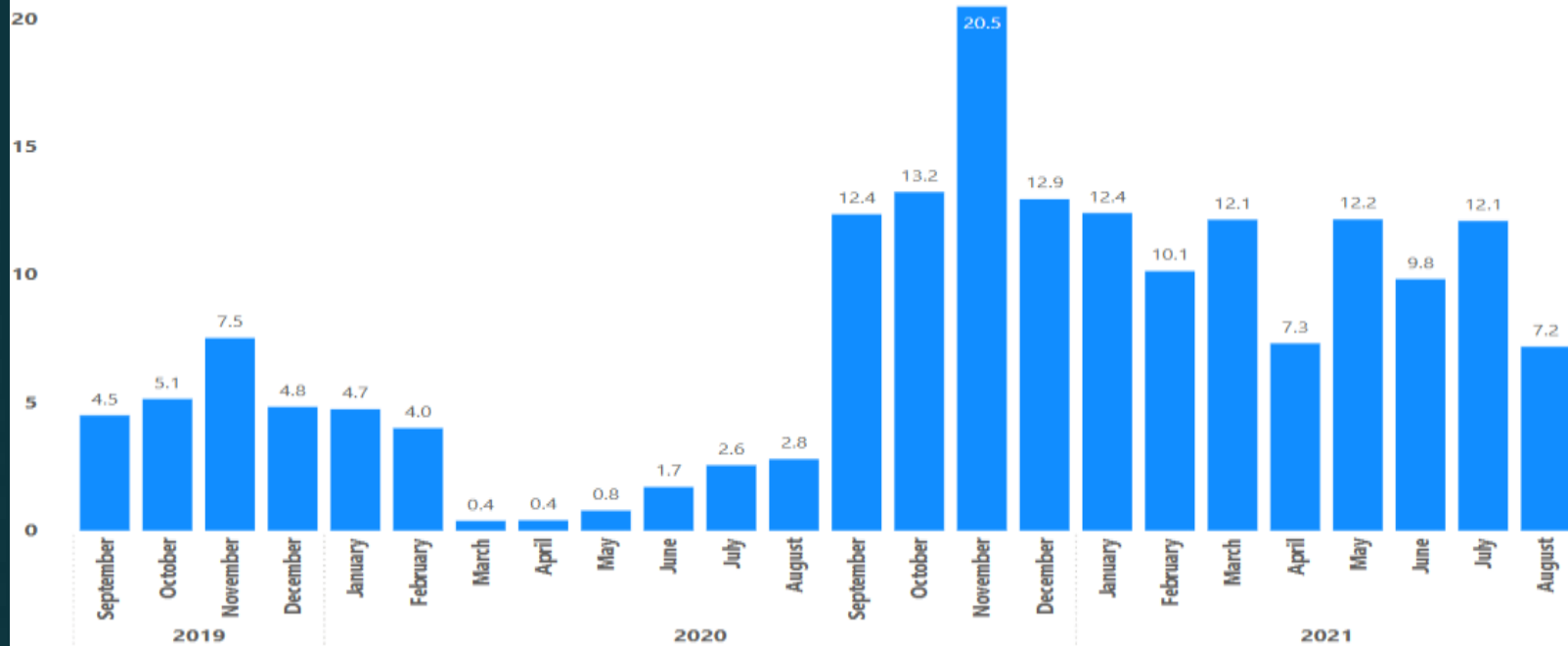
Request 7: Create a table of the Gross sales amount for the customer "Atliq Exclusive" for each month. This analysis helps to get an idea of low and high-performing months and take strategic decisions. The final table contains these columns: ▪
Month ▪ Year ▪ Gross sales

Query:

```
WITH gross_sales AS (  
  SELECT  
    YEAR(s.date) AS year,  
    MONTHNAME(s.date) AS month,    SUM(g.gross_price *  
    s.sold_quantity) / 1000000 AS gross_sales_million  
  FROM fact_sales_monthly s  
  JOIN dim_customer c  
  ON s.customer_code = c.customer_code  
  JOIN fact_gross_price g  
  USING (product_code, fiscal_year)  
  WHERE c.customer = 'Atliq Exclusive'  
  GROUP BY YEAR(s.date),  
    MONTHNAME(s.date)  
)  
SELECT  
  month,  
  year,  
  CONCAT(ROUND(gross_sales_million, 2), " M") AS gross_sales  
FROM gross_sales  
ORDER BY year asc;
```

Solution:

	month	year	gross_sales
▶	September	2019	4.50 M
	October	2019	5.14 M
	November	2019	7.52 M
	December	2019	4.83 M
	January	2020	4.74 M
	February	2020	4.00 M
	March	2020	0.38 M
	April	2020	0.40 M
	May	2020	0.78 M
	June	2020	1.70 M
	July	2020	2.55 M
	August	2020	2.79 M
	September	2020	12.35 M
	October	2020	13.22 M
	November	2020	20.46 M
	December	2020	12.94 M
	January	2021	12.40 M
	February	2021	10.13 M
	March	2021	12.14 M
	April	2021	7.31 M
	May	2021	12.15 M
	June	2021	9.82 M
	July	2021	12.09 M
	August	2021	7.18 M



Insights:

- ❑ **ATLIQ Exclusive's sales hit a low of \$0.38M in March 2020** due to lockdowns but began **recovering from September** as restrictions eased.
- ❑ Sales peaked at **\$20.46M**, the **highest in two years**, driven by the **festival season and market recovery**.

Insights

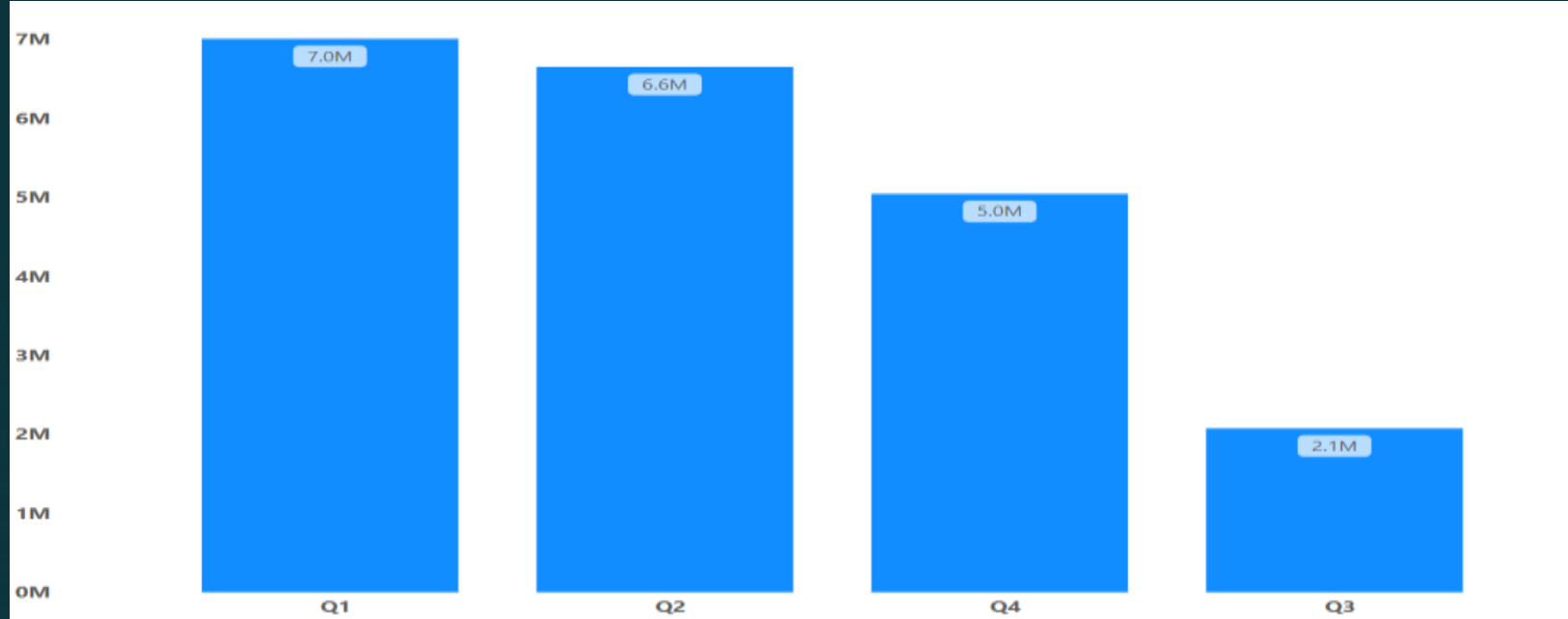
Request 8: Which quarter of 2020, got the maximum total_sold_quantity?

Query:

```
select
  case
    when month(date) in (9,10,11) then "Q1"
    when month(date) in (12,1,2) then "Q2"
    when month(date) in (3,4,5) then "Q3"
    else "Q4"
  end as quarter,
  sum(sold_quantity) as total_sold_quantity
from fact_sales_monthly
where fiscal_year = 2020
group by quarter
order by total_sold_quantity desc
```

Solution:

	quarter	total_sold_quantity
►	Q1	7005619
	Q2	6649642
	Q4	5042541
	Q3	2075087



Insights:

- ❑ Due to **COVID-19**, sales fell to **2.1M units** as lockdowns impacted demand.
- ❑ **Sales rebounded in Q4 (June-August)** as demand for **computers and accessories** surged for online learning, peaking in **Q1 (Sept-Nov)**.

Insights

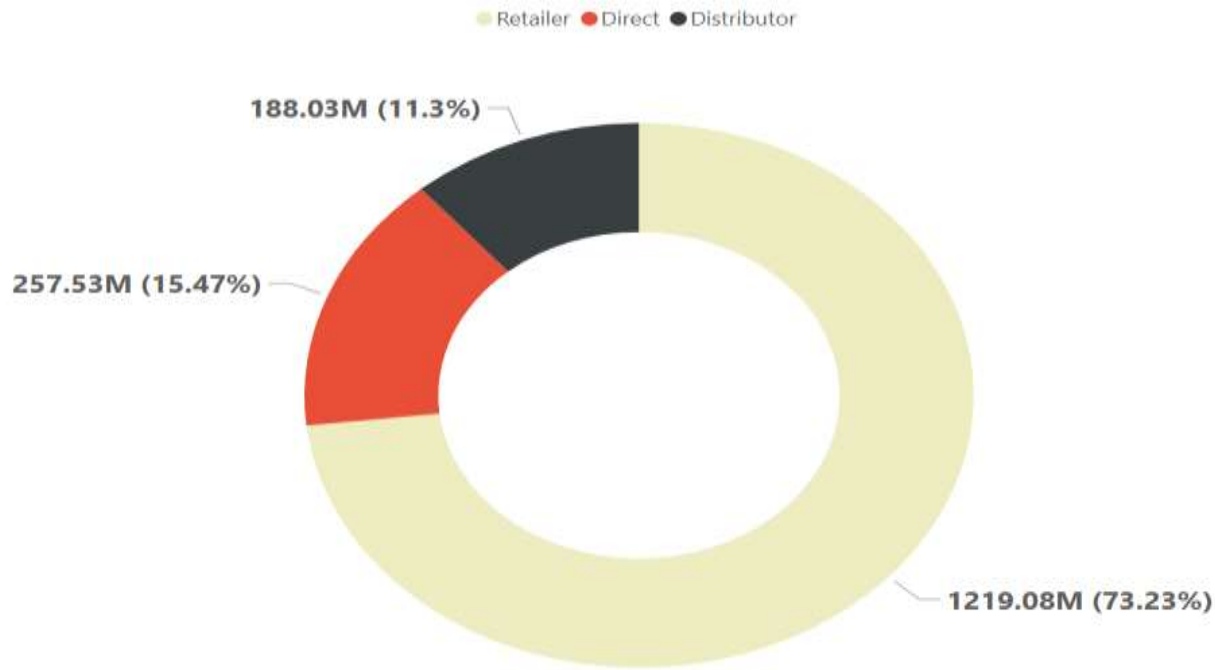
Request 9: Determine which channel contributed the most to gross sales in FY 2021 and calculate its percentage contribution?

Query:

```
with channel_contribute as (  
  select  
    c.channel  
    Sum(s.sold_quantity * g.gross_price) as gross_sales  
  
  from fact_sales_monthly s  
  join dim_customer c  
  on s.customer_code = c.customer_code  
  join fact_gross_price g  
  using (fiscal_year, product_code)  
  where s.fiscal_year = 2021  
  group by c.channel  
)  
select  
  channel, gross_sales,  
  Round(100 * gross_sales / sum(gross_sales) over(), 2) as  
  Percent_contribution  
from channel_contribute  
order by Percent_contribution desc
```

Solution:

	channel	gross_sales	Percent_contribution
►	Retailer	1219081639.9472	73.23
	Direct	257532002.6536	15.47
	Distributor	188025630.9348	11.30



Insights:

- ❑ **73% of total sales (\$1219M) in FY 2021** came from retailers, making them the **primary sales channel**.
- ❑ **Direct sales (\$258M) and distributors (\$188M)** contributed a **minor portion** of total revenue.

Insights

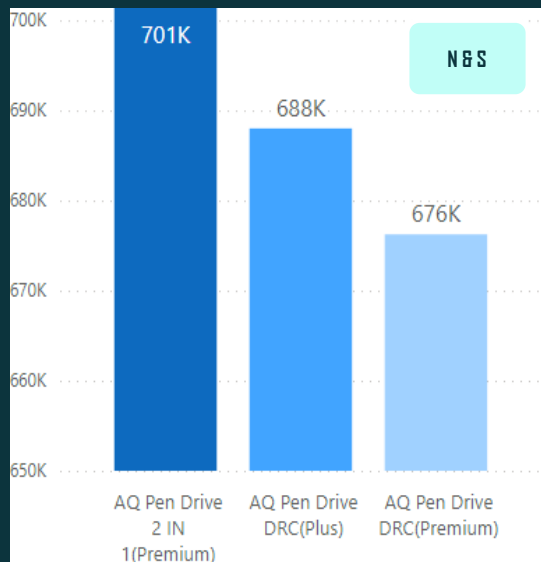
Request 10: Identify the top 3 products in each division based on total sold quantities for the fiscal year 2021. Rank them and provide the findings.

Query:

```
with top_n_product as (
  select
    p.division,
    p.product,
    Sum(s.sold_quantity) as total_sold_quantity
  from fact_sales_monthly s
  join dim_product p
  on s.product_code = p.product_code
  where s.fiscal_year = 2021
  group by p.division, p.product, p.product_code
)
select
  division,
  product,
  total_sold_quantity,
  Rankw from
  (
    select
      *, Rank() over(partition by division order by total_sold_quantity
    desc) as Rankw from top_n_product) t
  where Rankw <= 3
  order by division, Rankw
```

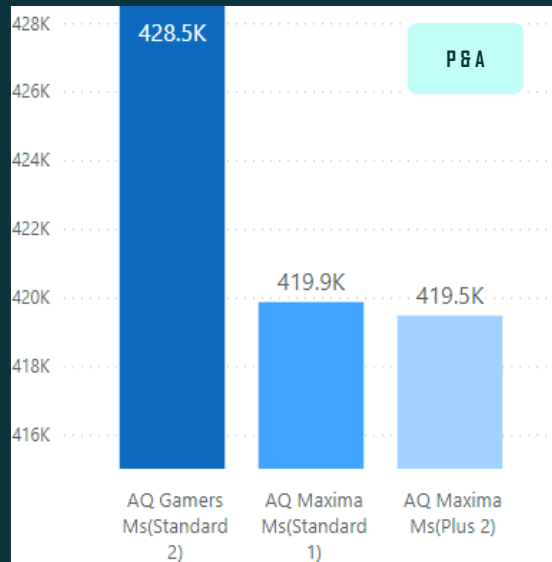
Solution:

	division	product	total_sold_quantity	Rankw
▶	N & S	AQ Pen Drive 2 IN 1	701373	1
	N & S	AQ Pen Drive DRC	688003	2
	N & S	AQ Pen Drive DRC	676245	3
	P & A	AQ Gamers Ms	428498	1
	P & A	AQ Maxima Ms	419865	2
	P & A	AQ Maxima Ms	419471	3
	PC	AQ Digit	17434	1
	PC	AQ Velocity	17280	2
	PC	AQ Digit	17275	3



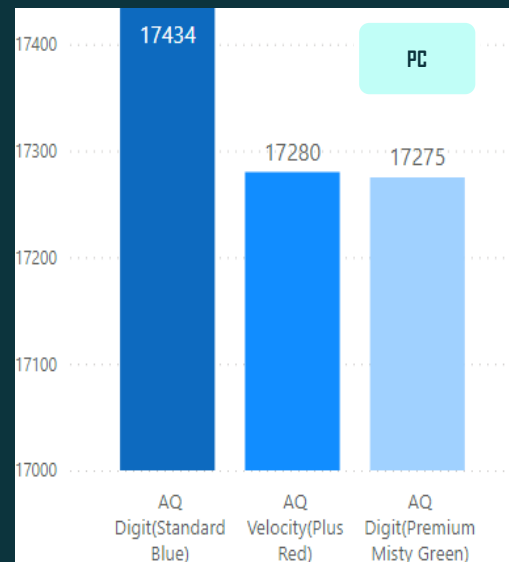
Insights:

- ❑ The **top 3 selling products** in NBS were **pen drives**, with the **AQ Pen Drive 2 IN 1** leading at **7.01 lakh units** in FY 2021.
- ❑ Two **AQ Pen Drive DRC** variants followed, selling **6.88 lakh** and **6.76 lakh** units, respectively.



Insights:

- ❑ The **top 3 selling products** in P&A were **mice**, with the **AQ Gamers Ms** leading at **4.28 lakh units**.
- ❑ Two **AQ Maxima Ms** variants followed, contributing to total sales of **around 4 lakh units**.



Insights:

- ❑ In the PC category, around **17,000** personal laptops were sold.
- ❑ The top-selling product was **AQ Digit PC**, with **17,434** units sold.

The slide features a dark teal background. On the left side, there are two vertical columns of teal squares. The first column consists of 12 squares, and the second column consists of 11 squares. On the right side, there are two vertical columns of teal squares. The first column consists of 12 squares, and the second column consists of 11 squares. The text "Thank You" is centered in the middle of the slide in a white, sans-serif font.

Thank You