

Ad_Hoc Insights

Consumer Goods



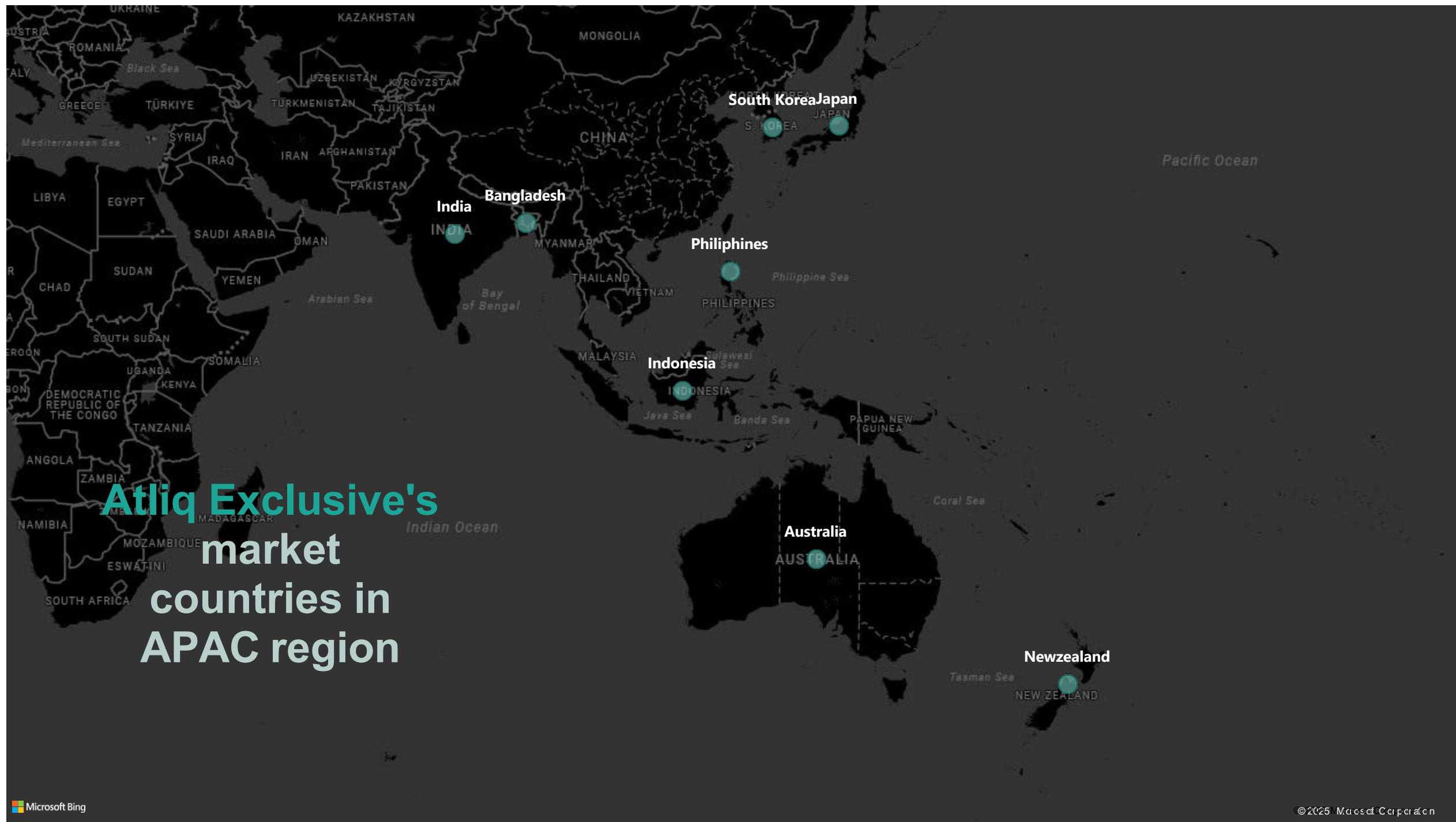
```
-- 1
/* Provide the list of markets in which customer "Atliq Exclusive" operates its business in the APAC region. */

SELECT
    market
FROM
    dim_customer
WHERE
    customer = 'Atliq Exclusive'
    AND region = 'APAC'
GROUP BY market
ORDER BY market
;
```

Result Grid	
	market
▶	Australia
	Bangladesh
	India
	Indonesia
	Japan
	Newzealand
	Philippines
	South Korea

Insights:-

Atliq Exclusive operates its business in **8 major markets** of the **Asia-Pacific region (APAC)**.



/* What is the percentage of unique product increase in 2021 vs. 2020?
The final output contains these fields, unique_products_2020 unique_products_2021 percentage_chg */

- SELECT**
T1.up_2020,
T2.up_2021 ,
Round((T2.up_2021 - T1.up_2020)*100/up_2020,2) as pct_chng
from
(
SELECT
COUNT(DISTINCT (product_code)) AS up_2020
FROM
fact_sales_monthly
WHERE
fiscal_year = 2020) T1,

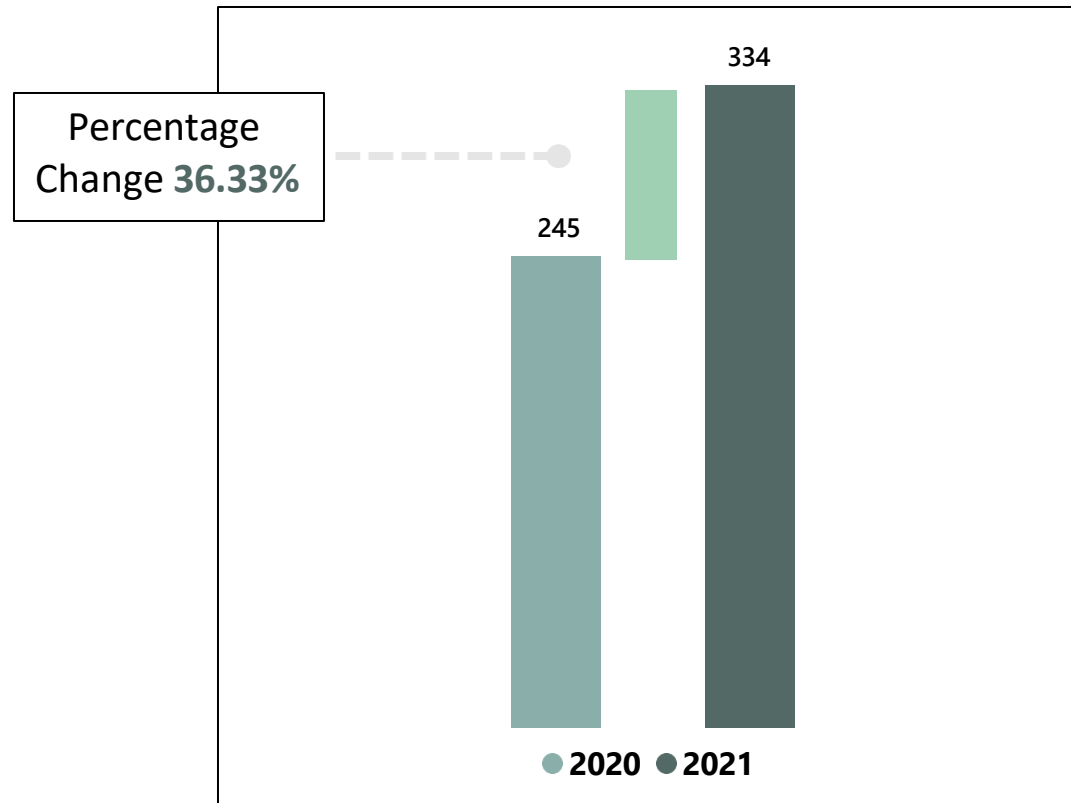
(**SELECT**
COUNT(DISTINCT (product_code)) AS up_2021
FROM
fact_sales_monthly
WHERE
fiscal_year = 2021) T2);

Result Grid			
Filter Rows:			
	up_2020	up_2021	pct_chng
	245	334	36.33

Insights:-

The number of unique products sold increased from **245 in 2020** to **334 in 2021**, showing a **36.33% year-over-year growth**. This indicates expansion in product portfolio or better SKU penetration across markets.

Growth in Unique Products Year-over-Year



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

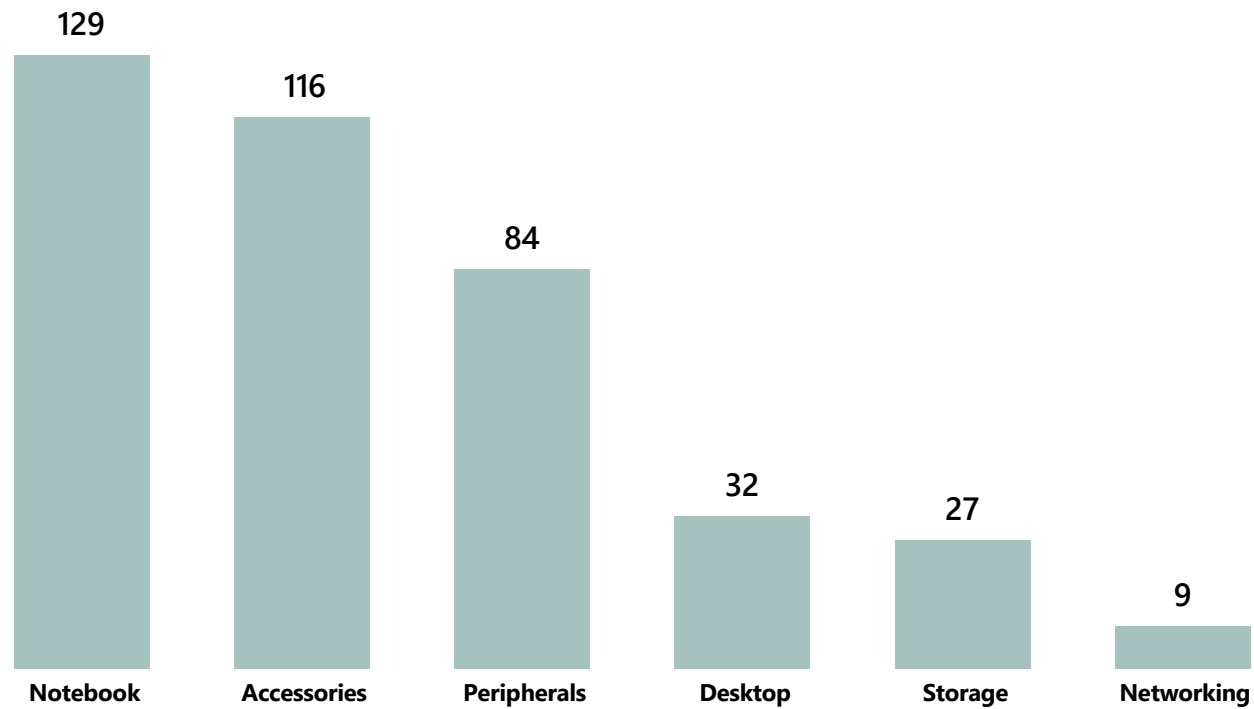
```
• SELECT
    segment, COUNT(DISTINCT (product_code)) AS product_count
FROM
    dim_product
GROUP BY segment
ORDER BY product_count DESC;
```

Result Grid			Filter Rows:
	segment	product_count	
▶	Notebook	129	
	Accessories	116	
	Peripherals	84	
	Desktop	32	
	Storage	27	
	Networking	9	

Insight :-

- There are a total of **397 unique products** across 6 segments.
- These **top 3 segments (Notebook, Accessories, Peripherals)** alone account for **83%** of the total product catalog.
- **Storage** and **Desktop** are below 10%.
- **Networking** has the lowest product count of 9 products(2.3%).

Unique Product Counts For Each Segment



/* 4 Follow-up: Which segment had the most increase in unique products in 2021 vs 2020? */

```
WITH CTE1 AS
(
    SELECT
        P.segment AS A,
        COUNT(DISTINCT FS.product_code) AS B
    FROM
        dim_product P
    JOIN
        fact_sales_monthly FS ON P.product_code = FS.product_code
    WHERE
        FS.fiscal_year = "2020"
    GROUP BY
        P.segment
),
CTE2 AS
(
    SELECT
        P.segment AS C,
        COUNT(DISTINCT FS.product_code) AS D
    FROM
        dim_product P
    JOIN
        fact_sales_monthly FS ON P.product_code = FS.product_code
    WHERE
        FS.fiscal_year = "2021"
    GROUP BY
        P.segment
)

SELECT
    CTE1.A AS segment, CTE1.B AS product_count_2020, CTE2.D AS product_count_2021, (CTE2.D - CTE1.B) AS difference
FROM CTE1, CTE2
WHERE CTE1.A = CTE2.C
ORDER BY difference;
```

Result Grid				
Filter Rows: <input type="text"/>				
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	segment	product_count_2020	product_count_2021	difference
►	Networking	6	9	3
	Storage	12	17	5
	Desktop	7	22	15
	Notebook	92	108	16
	Peripherals	59	75	16
	Accessories	69	103	34

Insight :-

42.7% increase in unique product count year over year.

Product Count Change by Segment

Segment	Product Count 2020	Product Count 2021	Difference
Networking	6	9	3
Storage	12	17	5
Desktop	7	22	15
Peripherals	59	75	16
Accessories	69	103	34
Notebook	92	108	16

```
-- 5
/* Get the products that have the highest and lowest manufacturing costs. The final output should contain these fields, */
```

- **SELECT**
 mc.product_code, P.product, mc.manufacturing_cost
FROM
 fact_manufacturing_cost mc
 JOIN
 dim_product P **ON** mc.product_code = P.product_code
WHERE
 manufacturing_cost
IN (
 SELECT
 MAX(manufacturing_cost)
 FROM
 fact_manufacturing_cost
 UNION SELECT
 MIN(manufacturing_cost)
 FROM
 fact_manufacturing_cost
)
ORDER BY manufacturing_cost **DESC** ;

product_code	product	manufacturing_cost
A6121110208	AQ HOME Allin1 Gen 2	263.4207
A2118150101	AQ Master wired x1 Ms	0.8654

Insight :-

AQ HOME Allin 1Gen 2(Desktop) has the highest manufacturing cost.
AQ Master wired x1 Ms (Mouse) has the lowest manufacturing cost.

Products Having The **Highest** And **Lowest** Manufacturing Costs

Product_code	Product	Manufacturing_cost
A6121110208	AQ HOME Allin1 Gen 2	263.42
A2118150101	AQ Master wired x1 Ms	0.87

-- 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. The final output contains these fields, */

- **SELECT**

dc.customer_code, customer, pre_invoice_discount_pct

FROM

dim_customer dc

JOIN

fact_pre_invoice_deductions pi **ON** dc.customer_code = pi.customer_code

WHERE

market = 'India' **AND** fiscal_year = 2021

GROUP BY dc.customer_code , customer

HAVING pre_invoice_discount_pct > (**SELECT**

AVG(pre_invoice_discount_pct)

FROM

fact_pre_invoice_deductions)

ORDER BY pre_invoice_discount_pct **DESC**

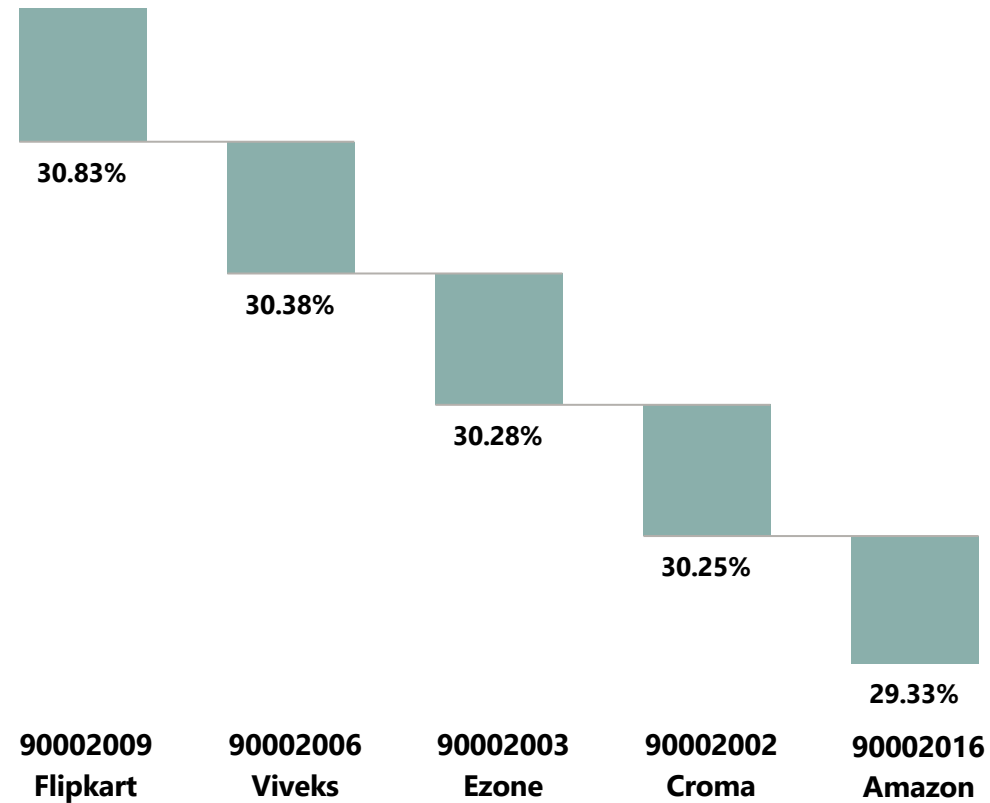
LIMIT 5;

Result Grid			
		Filter Rows:	Exp
	customer_code	customer	pre_invoice_discount_pct
▶	90002009	Flipkart	0.3083
	90002006	Viveks	0.3038
	90002003	Ezone	0.3028
	90002002	Croma	0.3025
	90002016	Amazon	0.2933

Insight:-

Flipkart received the **highest pre-invoice discount at 30.83%.**
1.50 % spread shows tight discount range.

Top 5 Indian Customers By Highest Avg Discounts – FY2021



-- 7

/* Get the complete report 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. */

- **SELECT**

```
MONTHNAME(FS.date) AS 'Month',  
FS.fiscal_year,  
ROUND(SUM(G.gross_price * FS.sold_quantity), 2) AS Gross_sales_Amount
```

FROM

```
fact_sales_monthly FS  
    JOIN  
dim_customer C ON FS.customer_code = C.customer_code  
    JOIN  
fact_gross_price G ON FS.product_code = G.product_code
```

WHERE

```
C.customer = 'Atliq Exclusive'
```

```
GROUP BY Month , FS.fiscal_year
```

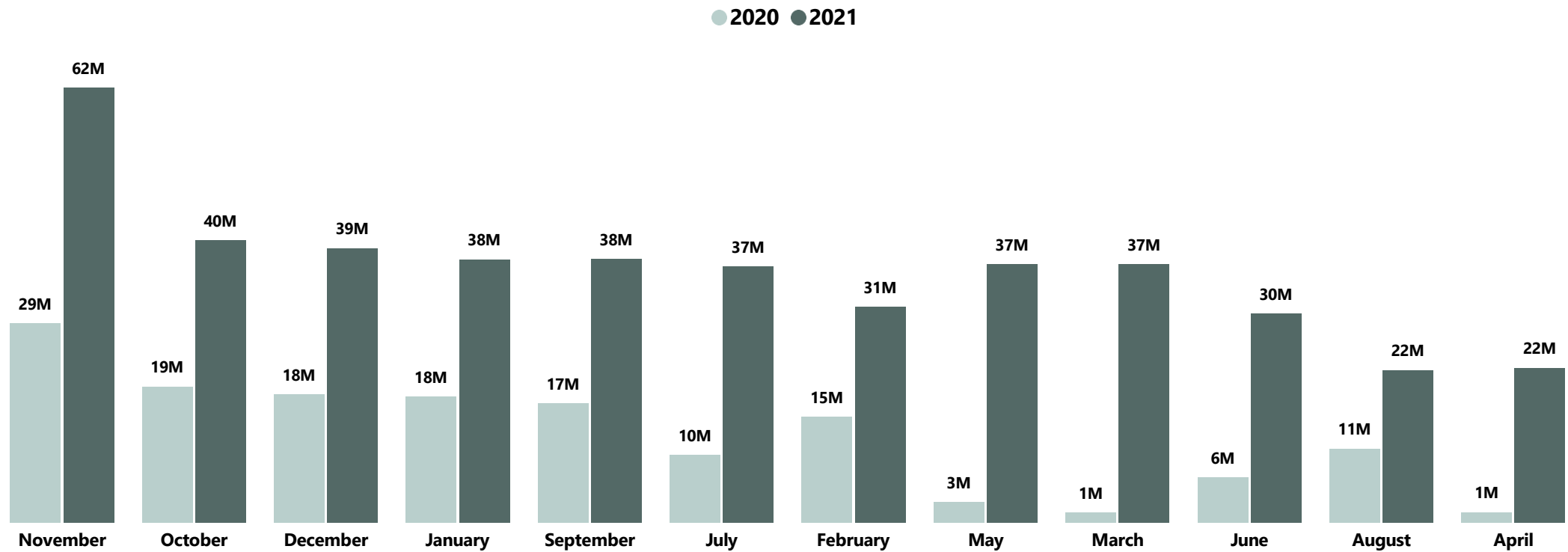
```
ORDER BY FS.fiscal_year;
```

Result Grid			
Filter Rows:			
	Month	fiscal_year	Gross_sales_Amount
►	September	2018	2347703.88
	October	2018	2462780.55
	November	2018	3766114.43
	December	2018	2390015.56
	January	2018	2285937.67
	February	2018	1985466.36
	March	2018	2219880.14
	April	2018	1392024.51
	May	2018	2310946.52
	June	2018	1976109.61
	July	2018	2224693.76
	August	2018	1498728.56
	September	2019	7860039.25
	October	2019	8496754.23
	November	2019	12362495.37

Insights:-

Although sales in **2020** were significantly lower in **March, April, and May** due to **COVID-19**, it's noticeable that sales tend to remain relatively low in **April, May, and June**. However, sales start picking up with the onset of the festival season from September to January.

Gross sales amount report for **Atliq Exclusive** By Fiscal Years



```
-- 8
/* In which quarter of 2020, got the maximum total_sold_quantity? */
```

- ```
SELECT
CASE
 WHEN MONTHNAME(date) IN ('September', 'October', 'November') THEN 'Q1'
 WHEN MONTHNAME(date) IN ('December', 'January', 'February') THEN 'Q2'
 WHEN MONTHNAME(date) IN ('March', 'April', 'May') THEN 'Q3'
 ELSE 'Q4'
END AS Quarters,
SUM(sold_quantity) AS total_sold_quantity
FROM fact_sales_monthly
WHERE fiscal_year = 2020
GROUP BY Quarters
ORDER BY total_sold_quantity DESC;
```

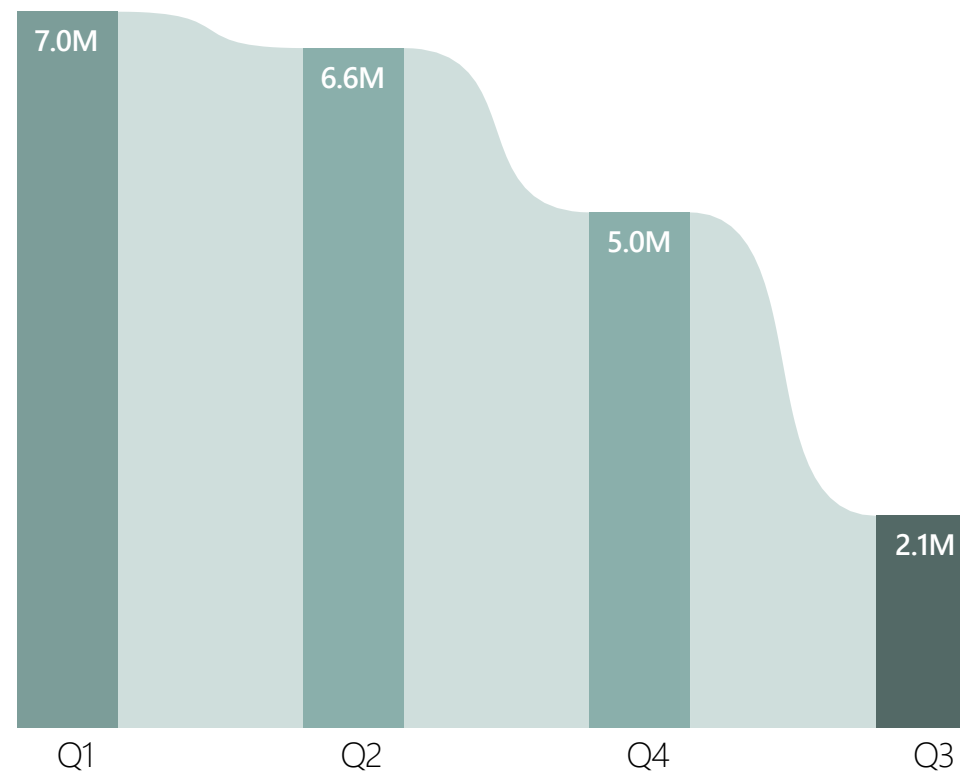
| Result Grid |          |                     | Filter Rows: |
|-------------|----------|---------------------|--------------|
|             | Quarters | total_sold_quantity |              |
| ▶           | Q1       | 7005619             |              |
|             | Q2       | 6649642             |              |
|             | Q4       | 5042541             |              |
|             | Q3       | 2075087             |              |

## Insight:-

**Sales peaked in Q1** with **7.01 million** units sold, followed by **Q2** with **6,649,642** units sold. After that, sales dropped in **Q3 (March–May)** as COVID peaked.



## Total Sold Quantity in FY 2020 By Quarter



```
-- 9
/* Which channel helped to bring more gross sales in the fiscal year 2021 and the percentage of contribution? */
```

- WITH cte1 AS

```
(
 SELECT
 C.channel,
 ROUND(SUM(G.gross_price * FS.sold_quantity / 1000000), 2) AS Gross_sales_mln
 FROM
 fact_sales_monthly FS
 JOIN dim_customer C ON FS.customer_code = C.customer_code
 JOIN fact_gross_price G ON FS.product_code = G.product_code
 WHERE
 FS.fiscal_year = 2021
 GROUP BY channel
)

SELECT
 channel,
 CONCAT(Gross_sales_mln, ' M') AS Gross_sales_mln,
 CONCAT(ROUND(Gross_sales_mln * 100 / total, 2), ' %') AS percentage
FROM
 (
 (SELECT SUM(Gross_sales_mln) AS total FROM cte1) x,
 (SELECT * FROM cte1) y
)
ORDER BY percentage DESC;
```

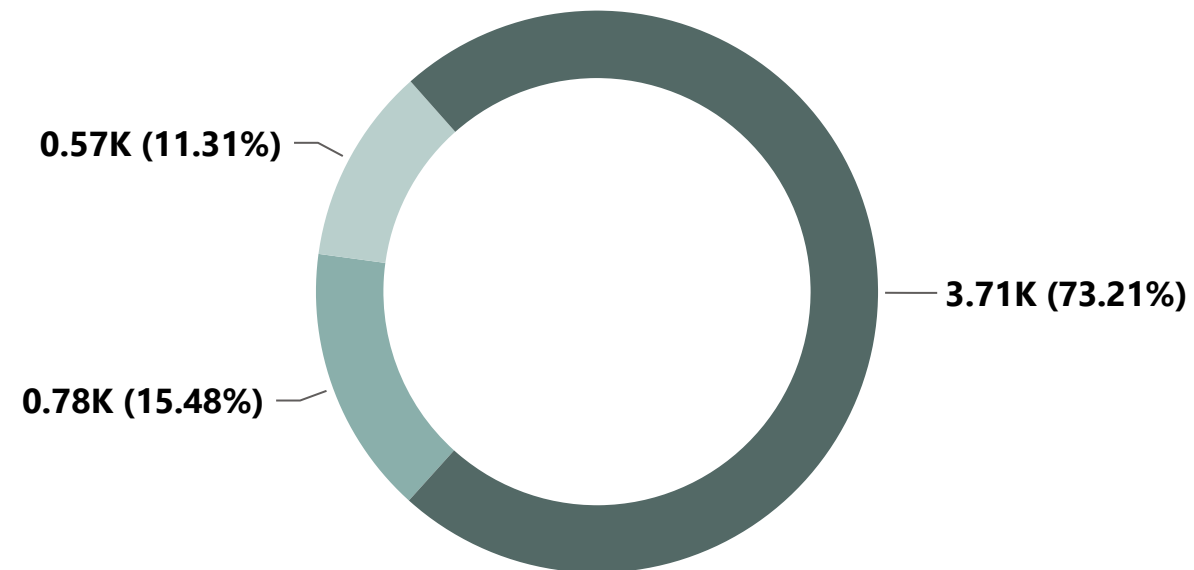
## Insight :-

Retailer gross sales for the year **FY2021** are **3,708.46 million**, accounting for **73.21%** of the total gross sales, followed by the **Direct** channel with **784.14 million (15.48%)** and **Distributor** with **572.86 million (11.31%)**.

| Result Grid  |                 |            |  |
|--------------|-----------------|------------|--|
| Filter Rows: |                 |            |  |
| channel      | Gross_sales_mln | percentage |  |
| Retailer     | 3708.46 M       | 73.21 %    |  |
| Direct       | 784.14 M        | 15.48 %    |  |
| Distributor  | 572.86 M        | 11.31 %    |  |

## Gross sales and contribution percentages by Channels for FY 2021

● Direct ● Distributor ● Retailer



```

-- 10
/* Get the Top 3 products in each division that have a high total_sold_quantity in the fiscal_year 2021? */
• with cte1 as (
 SELECT division, fs.product_code, product,
 SUM(fs.sold_quantity) AS total_sold_quantity
 FROM dim_product dp
 JOIN
 fact_sales_monthly fs ON fs.product_code = dp.product_code
 WHERE fiscal_year = 2021 GROUP BY division , product , fs.product_code , product
),
 cte2 as
 (select division, product_code,product, total_sold_quantity, rank() over(PARTITION BY division order by total_sold_quantity desc) rank_order
 from cte1)

SELECT
 cte2.division, cte2.product_code, cte2.product, cte2.total_sold_quantity, rank_order
FROM
 cte1 JOIN cte2
 ON cte1.division = cte2.division
 AND cte1.product_code = cte1.product_code
 WHERE rank_order IN (1 , 2, 3)
 GROUP BY cte2.product_code;

```

| division | product_code | product             | total_sold_quantity | rank_order |
|----------|--------------|---------------------|---------------------|------------|
| N & S    | A6720160103  | AQ Pen Drive 2 IN 1 | 701373              | 1          |
| N & S    | A6818160202  | AQ Pen Drive DRC    | 688003              | 2          |
| N & S    | A6819160203  | AQ Pen Drive DRC    | 676245              | 3          |
| P & A    | A2319150302  | AQ Gamers Ms        | 428498              | 1          |
| P & A    | A2520150501  | AQ Maxima Ms        | 419865              | 2          |
| P & A    | A2520150504  | AQ Maxima Ms        | 419471              | 3          |
| PC       | A4218110202  | AQ Digit            | 17434               | 1          |
| PC       | A4319110306  | AQ Velocity         | 17280               | 2          |
| PC       | A4218110208  | AQ Digit            | 17275               | 3          |

## Insights:-

- For **N&S**, the top-selling product is **AQ Pen Drive 2 in 1**, with a total quantity of **7,01,373** units sold, followed by two variants of **AQ Pen Drive DRC** with **6,88,003** and **6,76,245** units sold.
- For **P&A**, the top-selling product is **AQ Gamers Ms** with **4,28,498** units sold, followed by two variants of **AQ Maxima Ms** with **4,19,865** and **4,19,471** units sold.
- For **PC**, the top-selling product is **AQ Digit** with **17,434** units sold, followed by **AQ Velocity** with **17,280**, and another variant of **AQ Digit** with **17,275** units sold.

## Top 3 highest-selling products by Division for FY 2021

