



Consumer Goods

Ad_Hoc Insights



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AGENDA



Our Company

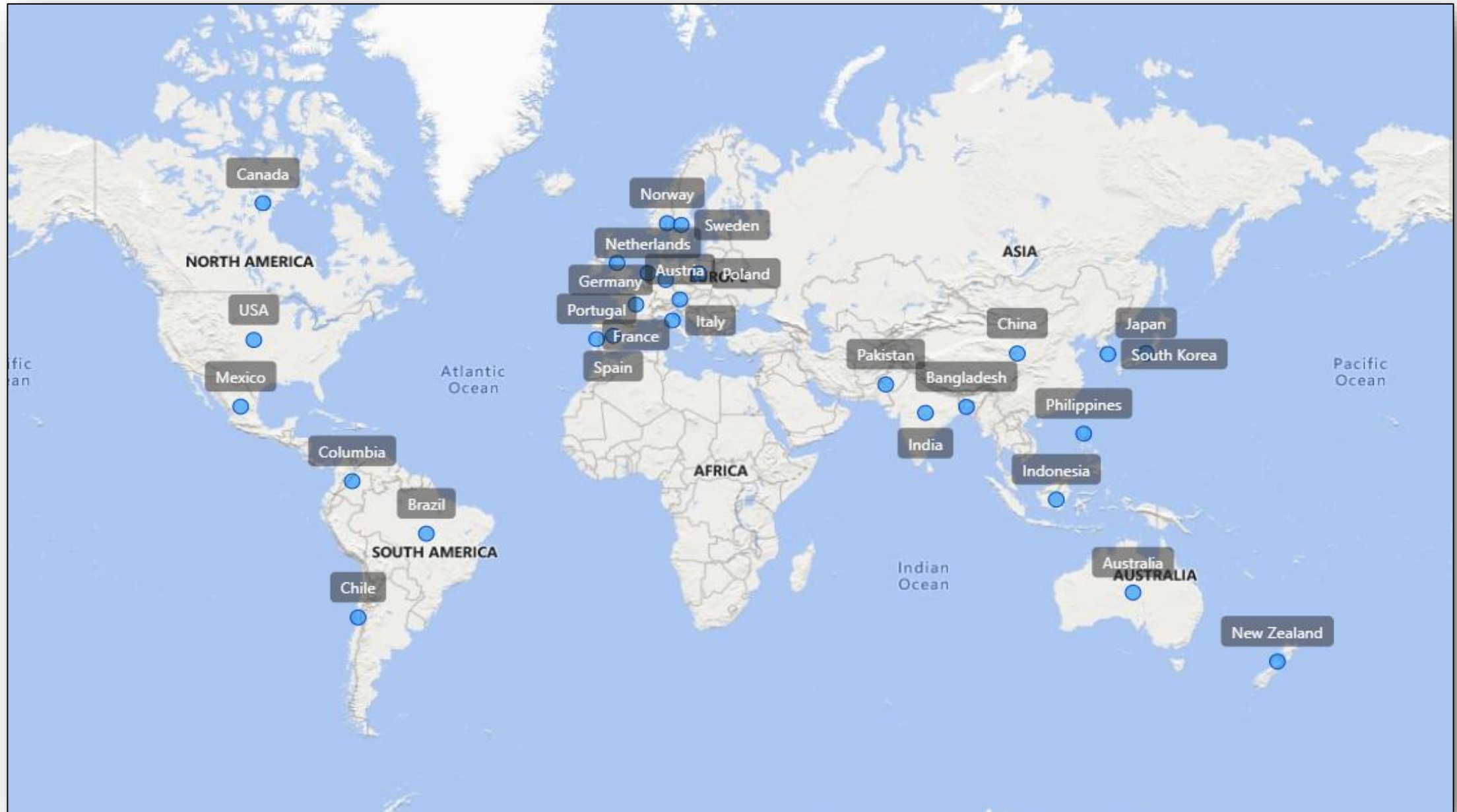
Atliq Hardware is one of the leading computer hardware producers in India as well as **26** other countries across the globe

Manufactures products under **3** major divisions i.e., Peripherals & Accessories, PC, Networking & Storage

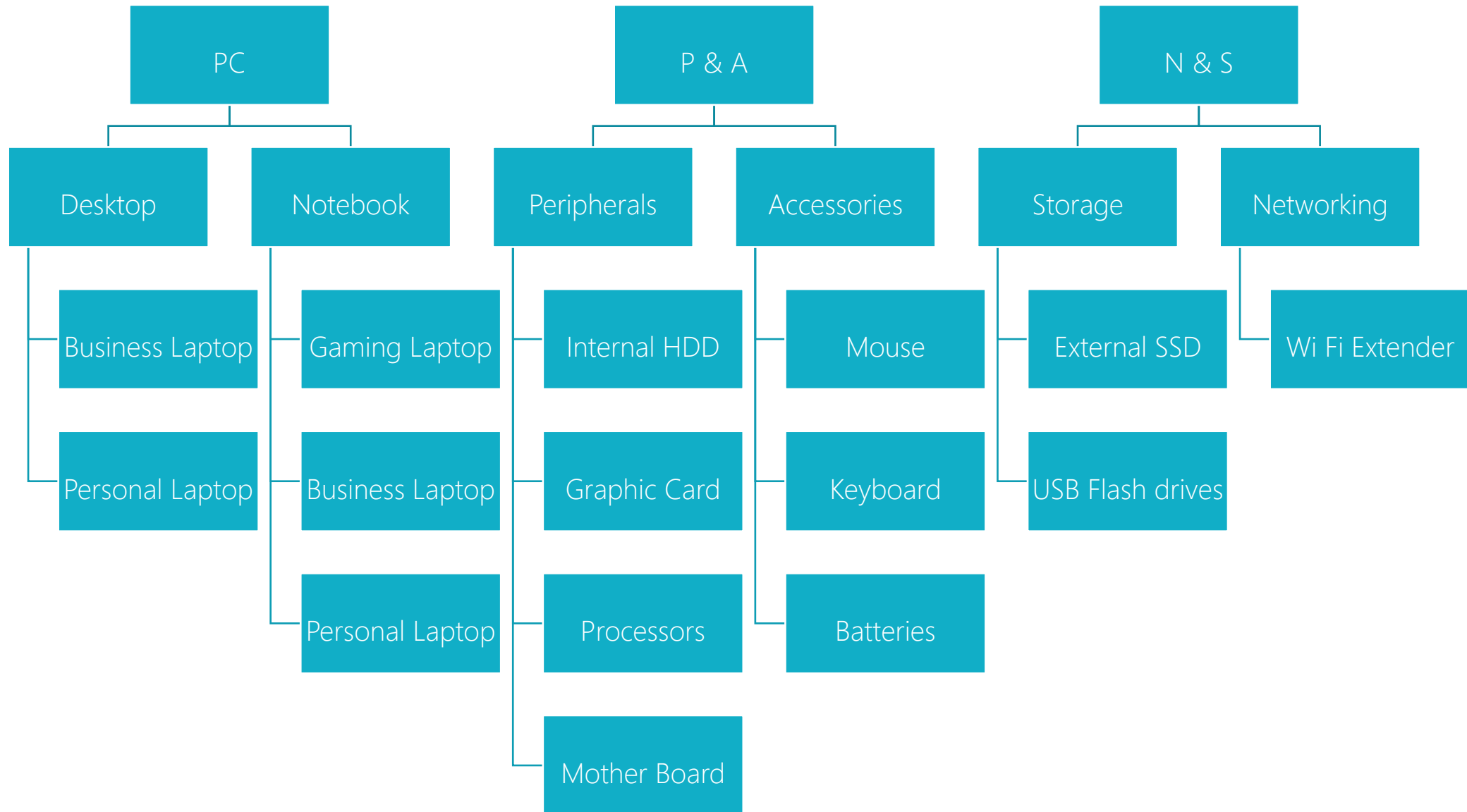
We have a total of **74** Customers like Neptune, Sage, Leader, Vijay Sales etc. across all markets/countries



Company's Market



Atliq's Product lines



Objective

Provide actionable insights to the management team using available sales and operations data.

Enable data-driven decision-making for market expansion and product development.

Identify high-performing and underperforming segments to optimize resource allocation.



About Data

The analysis is based on multiple fact and dimension tables from Atliq Hardware's database.

Fact Tables:

fact_sales_monthly – monthly sales quantity
fact_manufacturing_cost – cost of manufacturing products
fact_pre_invoice_deductions – discounts before invoicing
fact_gross_price – product pricing before deductions

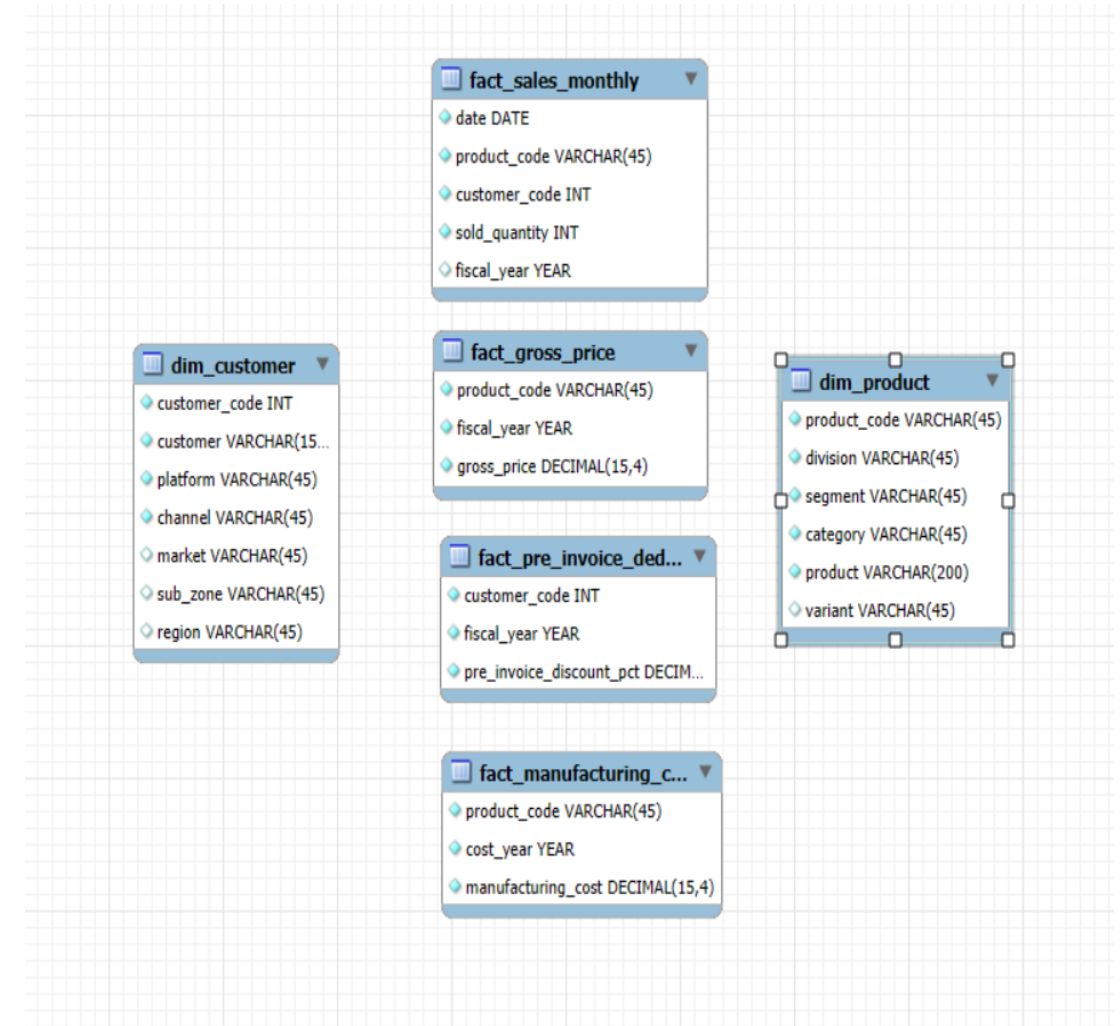
Dimension Tables:

dim_customer – customer details (market, region, channel)
dim_product – product details (division, segment, category)

Fiscal Year: September 1 to August 31

Data Availability: FY 2020 & FY 2021

Coverage: 27 countries across NA, EU, APAC regions



Request 1

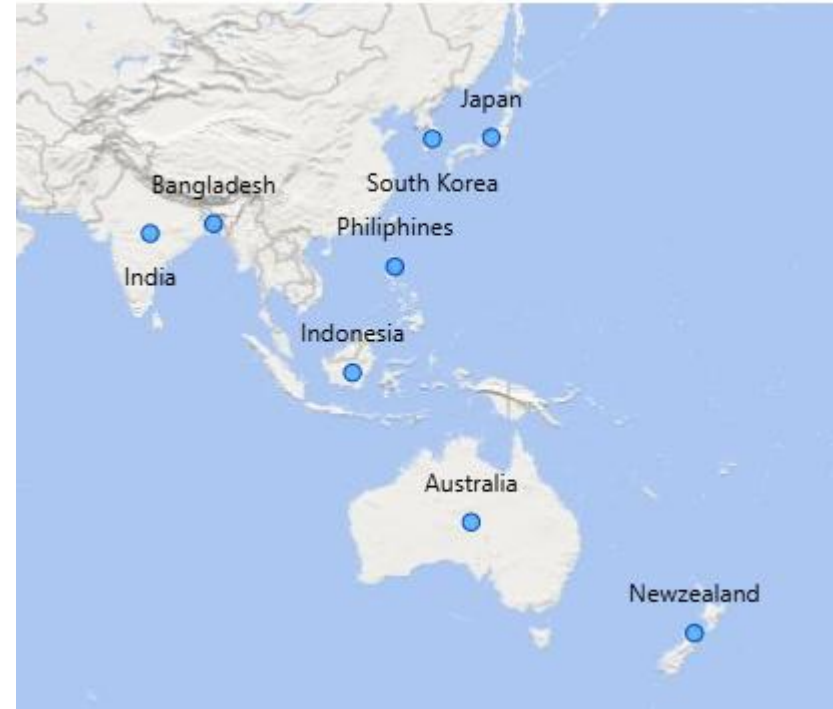
Provide the list of markets in which customer "Atliq Exclusive" operates its business in the APAC

Query:

```
SELECT DISTINCT(market) FROM dim_customer  
WHERE customer = 'Atliq Exclusive'  
AND region = 'APAC';
```

Output:

	market
▶	India
	Indonesia
	Japan
	Philippines
	South Korea
	Australia
	Newzealand
	Bangladesh



Insights:

- Atliq Exclusive operates in **8 markets** within APAC.
- Highest presence in APAC, followed by EU (6) and NA (2).
- Indicates strong regional penetration in Asia Pacific with potential for deeper market-specific strategies.



Request 2

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

Query:

```
with cte1 as(select count(distinct product_code) as
unique_products_2020 from fact_sales_monthly where
fiscal_year="2020"),
cte2 as(select count(distinct product_code) as
unique_products_2021 from fact_sales_monthly where
fiscal_year="2021")
select *,round((unique_products_2021 -
unique_products_2020)*100/unique_products_2020,2) as
percentage_cngfrom cte1 , cte2;
```

Output:

	unique_products_2020	unique_products_2021	percentage_cng
▶	245	334	36.33

● Sum of unique_product_2020 ● Sum of unique_product_2021

36.33

percentage_change

245

334

Insights:

- This growth reflects the company's ability to **adapt to evolving customer demands** and capture emerging market trends.
- With a **36.33% increase** in unique products from 2020 to 2021, Atliq Hardware is expanding its product variety at a healthy pace.



Request 3

Provide a report with the unique product counts for each segment, sorted in descending order by product count.

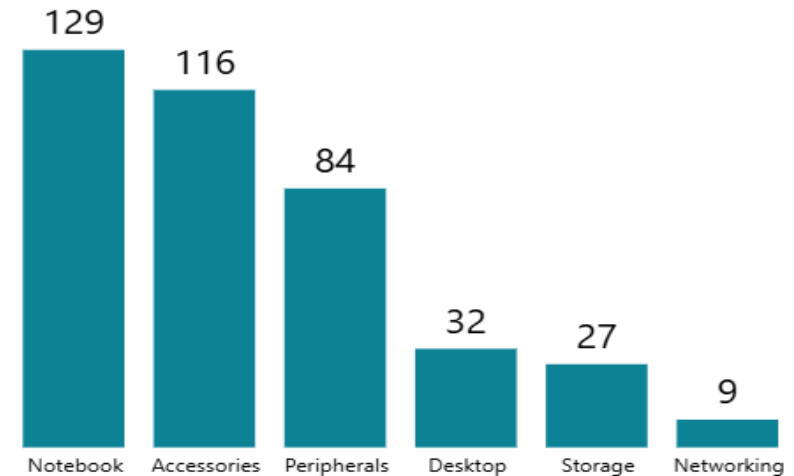
Query:

```
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

Product count by segment



Insights:

- Notebook, Accessories, and Peripherals lead in product variety, averaging around 110 products each.
- Desktop, Storage, and Networking segments lag behind, with fewer than 25 unique products each.
- The Product Development team should evaluate underperforming segments for redesign or innovation opportunities to stay competitive.



Request 4

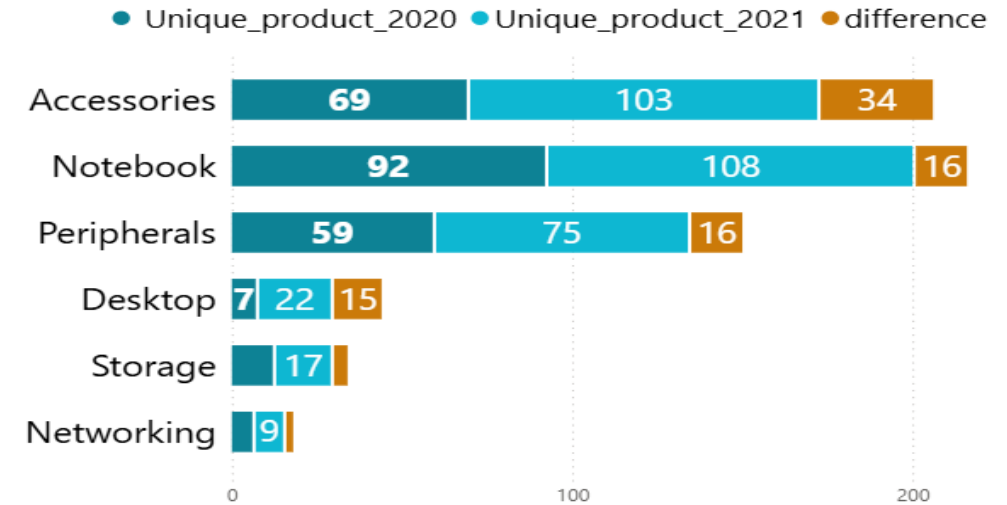
Which segment had the most increase in unique products in 2021 vs 2020? The final output contains these fields: segment, product_count_2020, product_count_2021, difference.

Query:

```
WITH unique_product AS (  
  SELECT  
    b.segment AS segment,  
    COUNT(DISTINCT CASE WHEN fiscal_year = 2020  
      THEN a.product_code END) AS product_count_2020,  
    COUNT(DISTINCT CASE WHEN fiscal_year = 2021  
      THEN a.product_code END) AS product_count_2021  
  FROM fact_sales_monthly AS a  
  INNER JOIN dim_product AS b  
    ON a.product_code = b.product_code  
  GROUP BY b.segment  
)  
SELECT  
  segment,  
  product_count_2020,  
  product_count_2021,  
  (product_count_2021 - product_count_2020) AS difference  
FROM unique_product  
ORDER BY difference DESC;
```

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



Insights:

- **Notebook** and **Peripherals** each added 16 new products, sustaining their high product variety.
- **Accessories** segment leads with 34 new products, showing strong innovation focus.



Request 5

Get the products that have the highest and lowest manufacturing costs. The final output should contain: product_code, product, manufacturing_cost.

Query:

```
select p.product_code,p.product,m.manufacturing_cost
  from dim_product p
join fact_manufacturing_cost m using(product_code)
where manufacturing_cost in
((select max(manufacturing_cost) from fact_manufacturing_cost),
(select min(manufacturing_cost) from fact_manufacturing_cost));
```

•

Output:

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

Insights:

- **Highest manufacturing cost:** AQ HOME Allin1 Gen 2 (Plus 3) – \$240.54 (Desktop category).
- **Lowest manufacturing cost:** AQ Master wired x1 Ms – \$0.89 (Mouse category).



Request 6

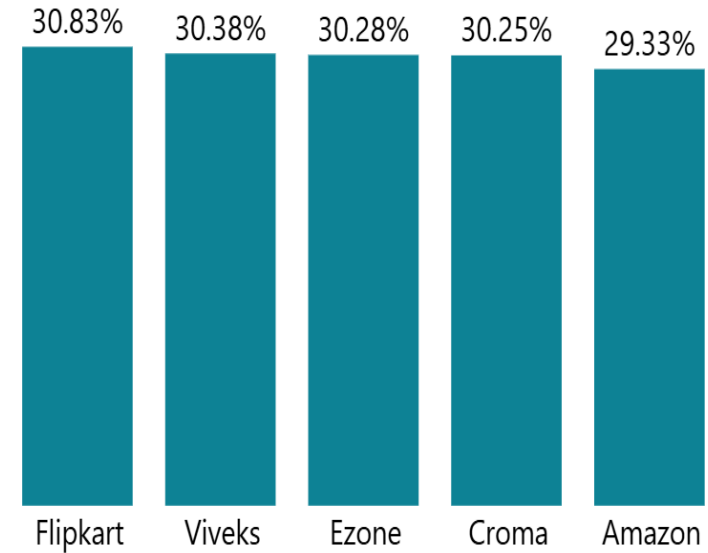
Generate a report of the top 5 customers who received the highest average pre_invoice_discount_pct for the fiscal year 2021 in the Indian market. The final output should contain: customer_code, customer, average_discount_percentage

Query:

```
SELECT
  a.customer_code,
  b.customer,
  CONCAT(ROUND(AVG(pre_invoice_discount_pct) * 100, 2), '%')
  AS average_discount_percentage
FROM fact_pre_invoice_deductions AS a
INNER JOIN dim_customer AS b
  ON a.customer_code = b.customer_code
WHERE market = 'India'
  AND fiscal_year = 2021
GROUP BY customer, customer_code
ORDER BY AVG(pre_invoice_discount_pct) DESC
LIMIT 5;
```

Output:

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



Insights:

- **Flipkart** tops the list with **30.83%** average pre-invoice discount in FY 2021.
- The top 5 customers in India received an average discount of ~30.21%, significantly higher than the overall market average of 24.16%.
- High discount rates for top retailers may indicate **strategic partnerships** or **competitive pricing pressures** in the Indian market.



Request 7

Get the complete report of the Gross sales amount for the customer "Atliq Exclusive" for each month. This analysis helps identify low and high-performing months for strategic decisions.

Query:

```
select monthname(date) as month,  
year(date) as year  
,round(sum(gross_price*sold_quantity),2) as gross_sales_amount from  
fact_sales_monthly  
join fact_gross_price using(product_code,fiscal_year)  
join dim_customer using(customer_code)  
where customer="Atliq Exclusive" group by month,year;
```

Insights:

- **November 2020** recorded the **highest sales** at **\$20.46M**.
- **March 2021** had the **lowest sales** at **\$0.38M**, mainly due to pandemic-related store closures.
- Sales began recovering from **September 2020** onwards, boosted by festival season and relaxed lockdown restrictions.

Output:

	month	year	gross_sales_amount
▶	September	2019	4496259.67
	October	2019	5135902.35
	November	2019	7522892.56
	December	2019	4830404.73
	January	2020	4740600.16
	February	2020	3996227.77
	March	2020	378770.97
	April	2020	395035.35
	May	2020	783813.42
	June	2020	1695216.60
	July	2020	2551159.16
	August	2020	2786648.26
	September	2020	12353509.79
	October	2020	13218636.20
	November	2020	20464999.10
	December	2020	12944659.65
	January	2021	12399392.98
	February	2021	10129735.57
	March	2021	12144061.25
	April	2021	7311999.95
	May	2021	12150225.01
	June	2021	9824521.01
	July	2021	12092346.32
	August	2021	7178707.59



Request 8

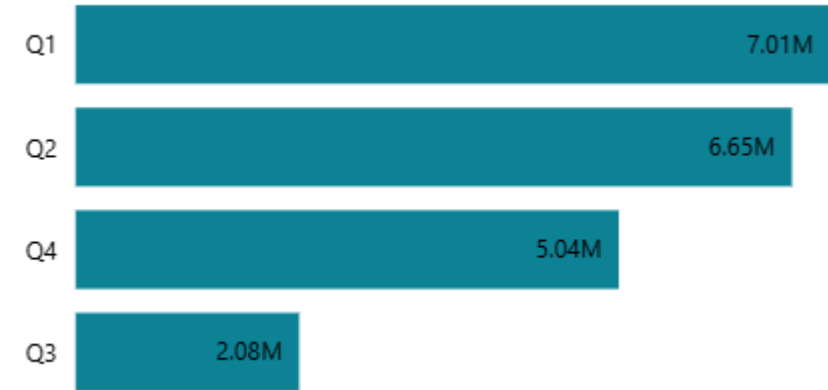
Which quarter of 2020 had the maximum total_sold_quantity? The final output should contain: quarter, total_sold_quantity.

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 quarters,
SUM(sold_quantity) AS total_quantity_sold
FROM fact_sales_monthly
WHERE fiscal_year = 2020
GROUP BY quarters
ORDER BY total_quantity_sold DESC;
```

Output:

quarters	total_quantity_sold
Q1	7005619
Q2	6649642
Q4	5042541
Q3	2075087



Insights:

- In FY 2020, Q1 achieved the highest sold quantity, exceeding 7 million units.
- Sold quantities declined in Q2 and Q3 but rebounded in Q4, reaching 5.04 million units



Request 10

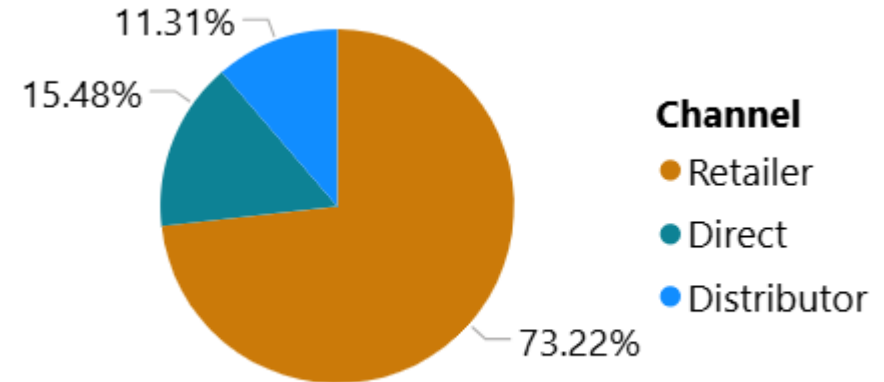
Which channel contributed the most to gross sales in fiscal year 2021, and what was its percentage contribution? The final output should contain: channel, gross_sales_mln,

Query:

```
with cte as(
select c.channel,
round(sum(fm.sold_quantity*fg.gross_price)/1000000,2) as
total_gross_sales_mln
from fact_sales_monthly fm
join fact_gross_price fg using(product_code,fiscal_year)
join dim_customer c on c.customer_code=fm.customer_code
where fm.fiscal_year="2021"
group by c.channel)
select channel,
total_gross_sales_mln,
round(total_gross_sales_mln*100/sum(total_gross_sales_mln)over(),2)
as percentage
from cte order by percentage desc;
```

Output:

channel	total_gross_sales_mln	percentage
Retailer	1219.08	73.23
Direct	257.53	15.47
Distributor	188.03	11.30



Insights:

- **Retailer** channel dominates with **73.05%** of total gross sales in FY 2021.
- **Direct** and **Distributor** channels combined account for **~27%** of sales.



Request 9

Get the top 3 products in each division based on total_sold_quantity in FY 2021. The final output should contain: division, product_code, product, total_sold_quantity.

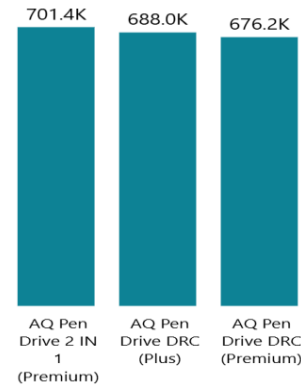
Query:

```
with cte1 as(
select p.division, p.product_code, p.product,
(sold_quantity) as total_qty
from fact_sales_monthly s
join dim_product p on p.product_code=s.product_code
where fiscal_year=2021
group by p.division, p.product_code,p.product)
,cte2 as (select *,
dense_rank() over (partition by division order by total_qty desc) as drnk
from cte1)
select * from cte2 where drnk<=3
```

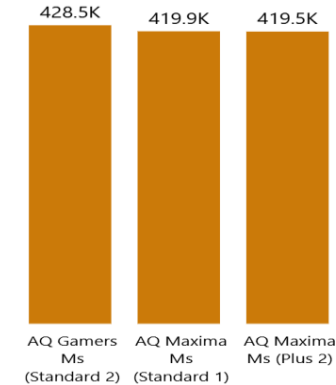
Output:

division	product_code	product	total_qty	drnk
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

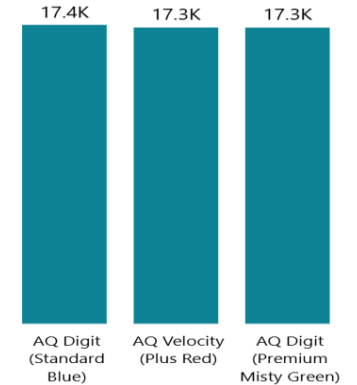
Division - N & S



Division - P & A



Division - PC



Insights:

- In the N & S division, pen drives hold the top three positions, highlighting their popularity and strong sales performance.
- The P & A division features only mouse among its top three products, indicating a distinct demand for these devices.
- The PC division 's top sellers consist entirely of personal laptops.



Summary

- **Market Trends:** Product variety grew **36.33% YoY**, reflecting adaptability to evolving customer needs.
- **Regional Insights:** Certain markets (e.g., India) show strong discount usage; regional promotions can drive growth.
- **Seasonality:** Sales volumes peak in **Q4 FY2020** and **Q4 FY2021**, aligning with festive and promotional seasons.
- **Channel Performance:** **Retailer channel** dominates, contributing **73.05%** of gross sales in FY2021.
- **Customer Focus:** High-value customers (e.g., *Atliq Exclusive*) show distinct monthly sales patterns with seasonal spikes.
- **Product Leaders:** Top products vary by division; *DENSE_RANK()* analysis highlights multiple SKUs tied in performance.



Recommendations

1. Boost Online Channel Presence

- Develop targeted e-commerce strategies to increase online sales share (currently <1%)
- Partner with online marketplaces for exclusive launches.

2. Leverage Seasonal Demand

- Increase inventory and marketing spend in **Q4** to align with festive peaks.
- Launch flash sales in high-performing months to maximize revenue.

3. Optimize Discounts by Region

- Analyze discount elasticity in high-discount markets (e.g., India) to avoid margin erosion.
- Tailor promotions to regional buying patterns.

4. Focus on Top Products

- Bundle top-performing SKUs (from DENSE_RANK() analysis) with complementary items.
- Maintain high stock levels of bestsellers during demand peaks.

5. Channel Diversification

- Explore **Direct-to-Consumer (D2C)** models for better margins.
- Train retailer partners for upselling and cross-selling high-value products.





Thank You