



# Consumer Goods Insights:

## Data-Driven Analysis for Atliq Hardware

By-  
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# Project Overview

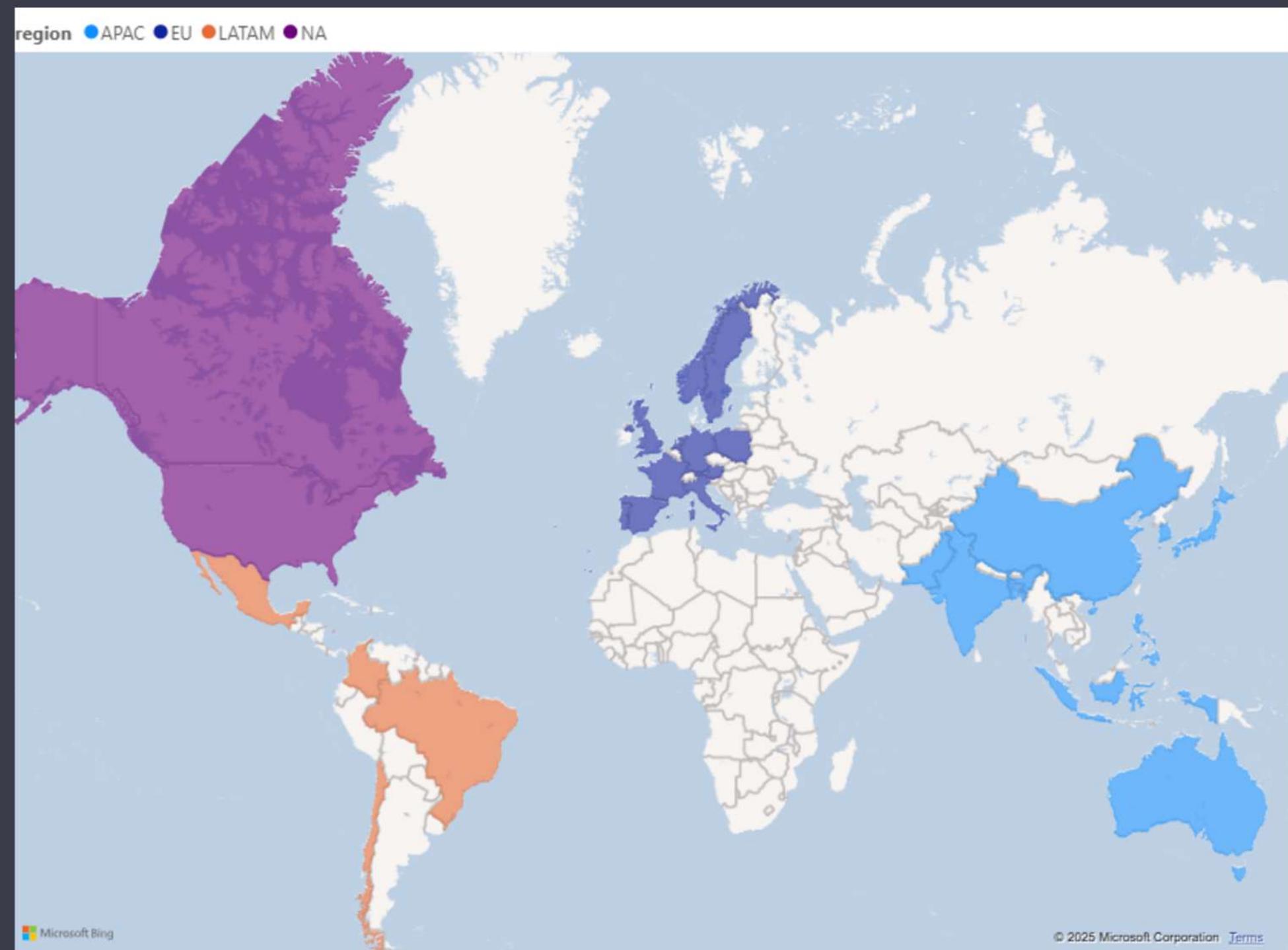
- Atliq Hardware, a major Indian computer hardware manufacturer with global reach.
- Management requires improved data insights for timely, strategic, and data-driven decision-making.
- To enhance analytics, Atliq Hardware is expanding its team by hiring junior data analysts through a SQL skills challenge.
- The project's core task: address 10 ad-hoc business requests and provide data-driven insights to management

NOTE: Fiscal year for Atliq Exclusive starts from 1st September and Ends on 31st August each year



# Company presence

Atliq Hardware has market presence in the following regions:  
APAC, EU, NA, and LATAM.

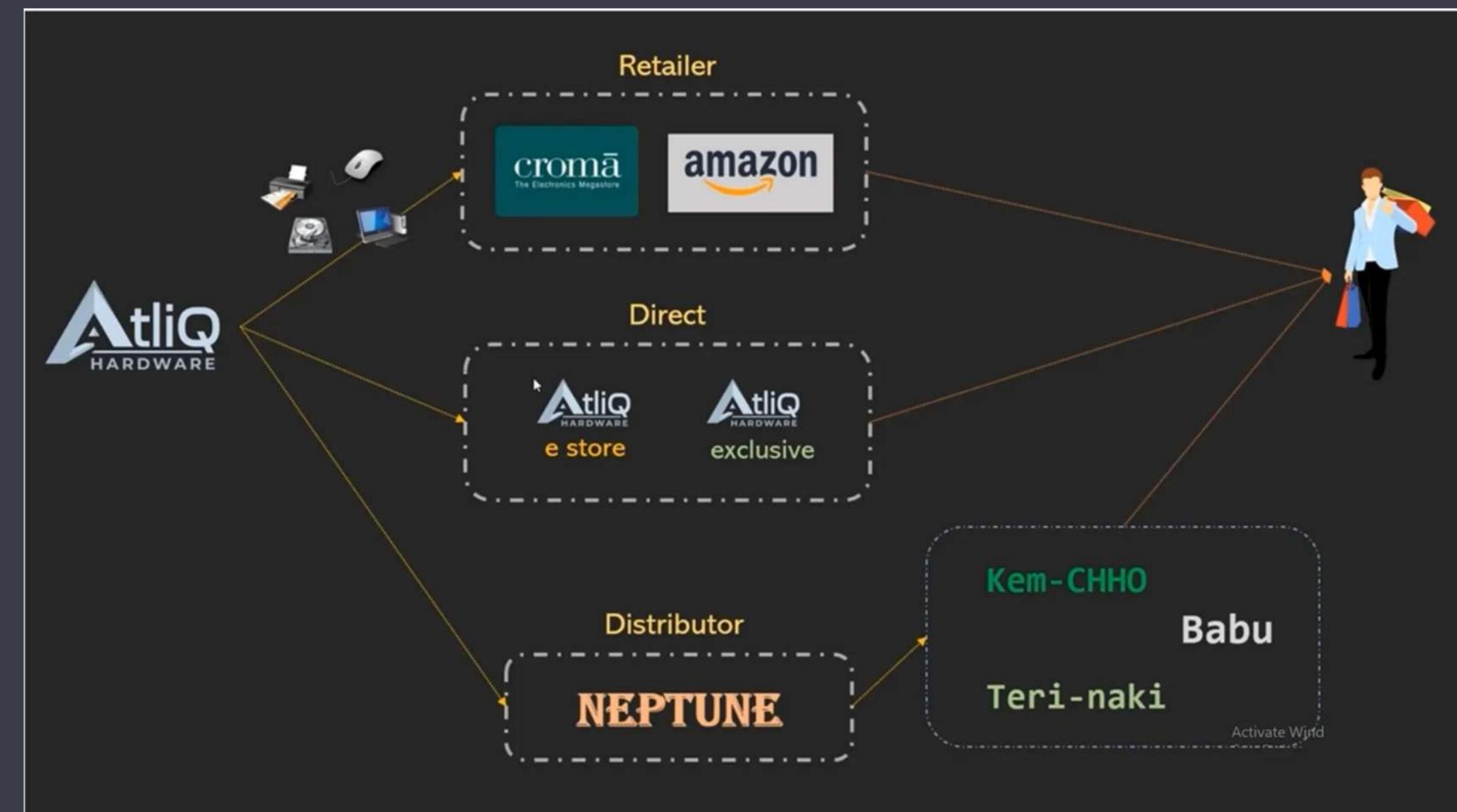




# Company Channels

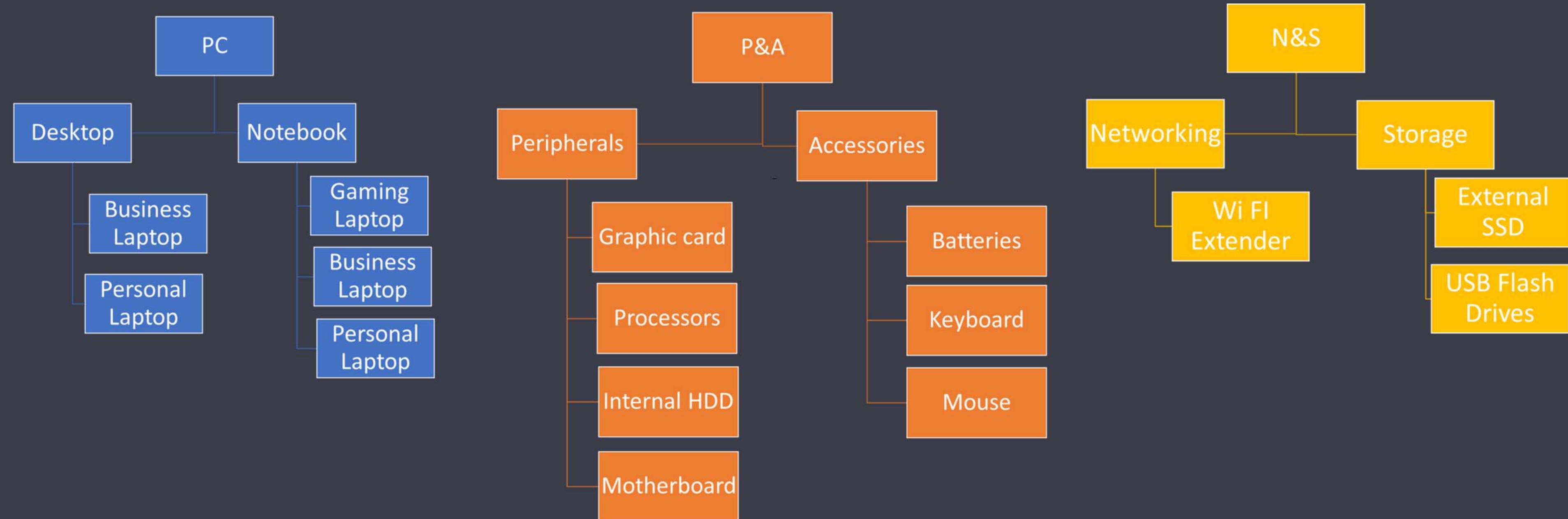
In terms of customer channels, they utilize 3 types of Channels in selling their products to consumers :

1. Retailers :- This includes partnerships with both traditional brick-and- mortar stores and online marketplaces.
2. Direct Sales :- They also operate their own online stores (AtliQ Direct E-Stores) and physical exclusive showrooms (AtliQ Exclusive showrooms).
3. Distributors :- They leverage a network of distributors to distribute product to local stores across the country.



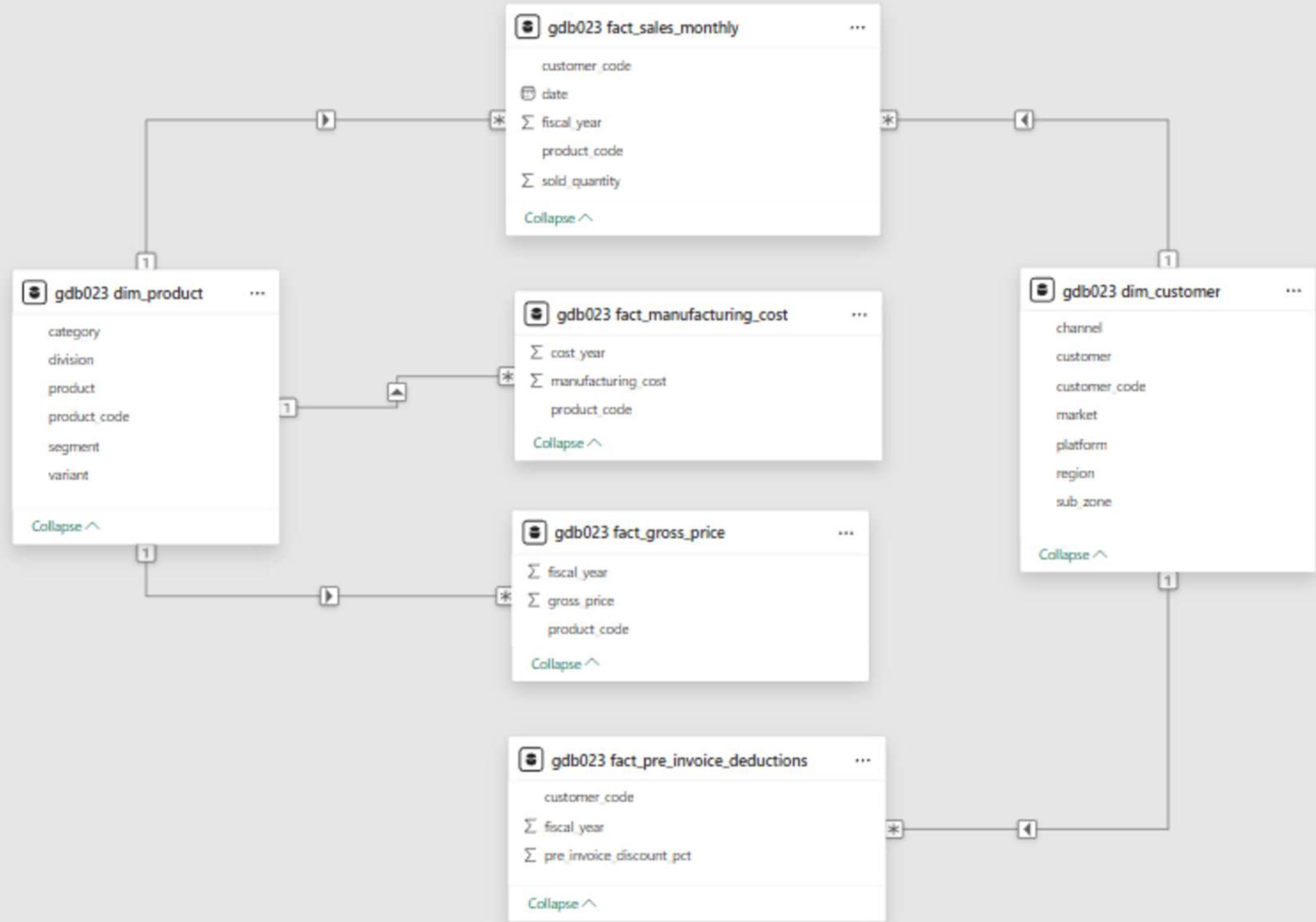


# Company Product Lineup





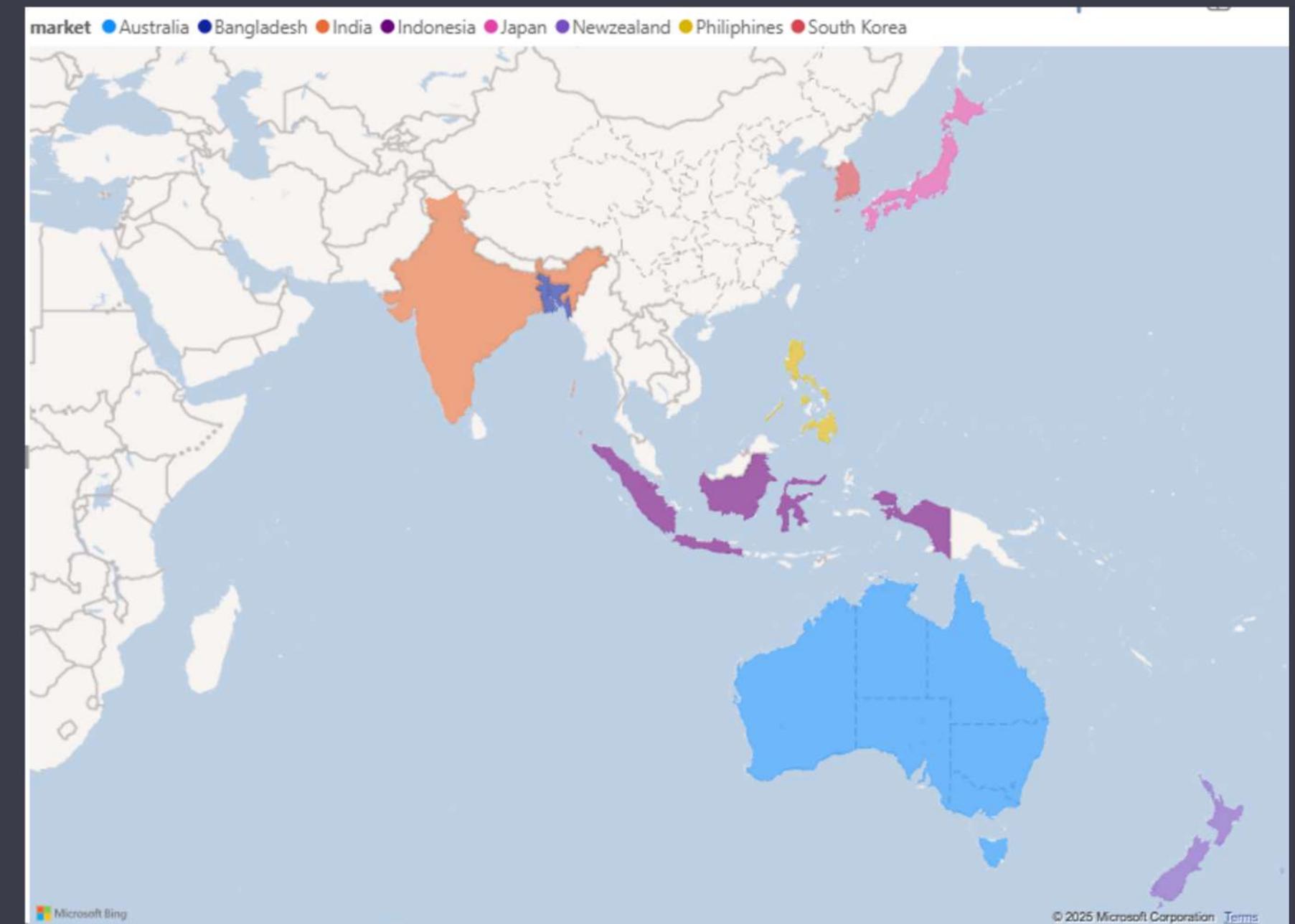
# Data Model & Tools used





# APAC Market Focus for Atliq Exclusive

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





## Insights:

- Atliq Exclusive operates in 8 key markets within the APAC region
- The list includes a mix of developed economies (Japan, South Korea, Australia, New Zealand) and emerging economies (India, Indonesia, Philippines, Bangladesh) within APAC.



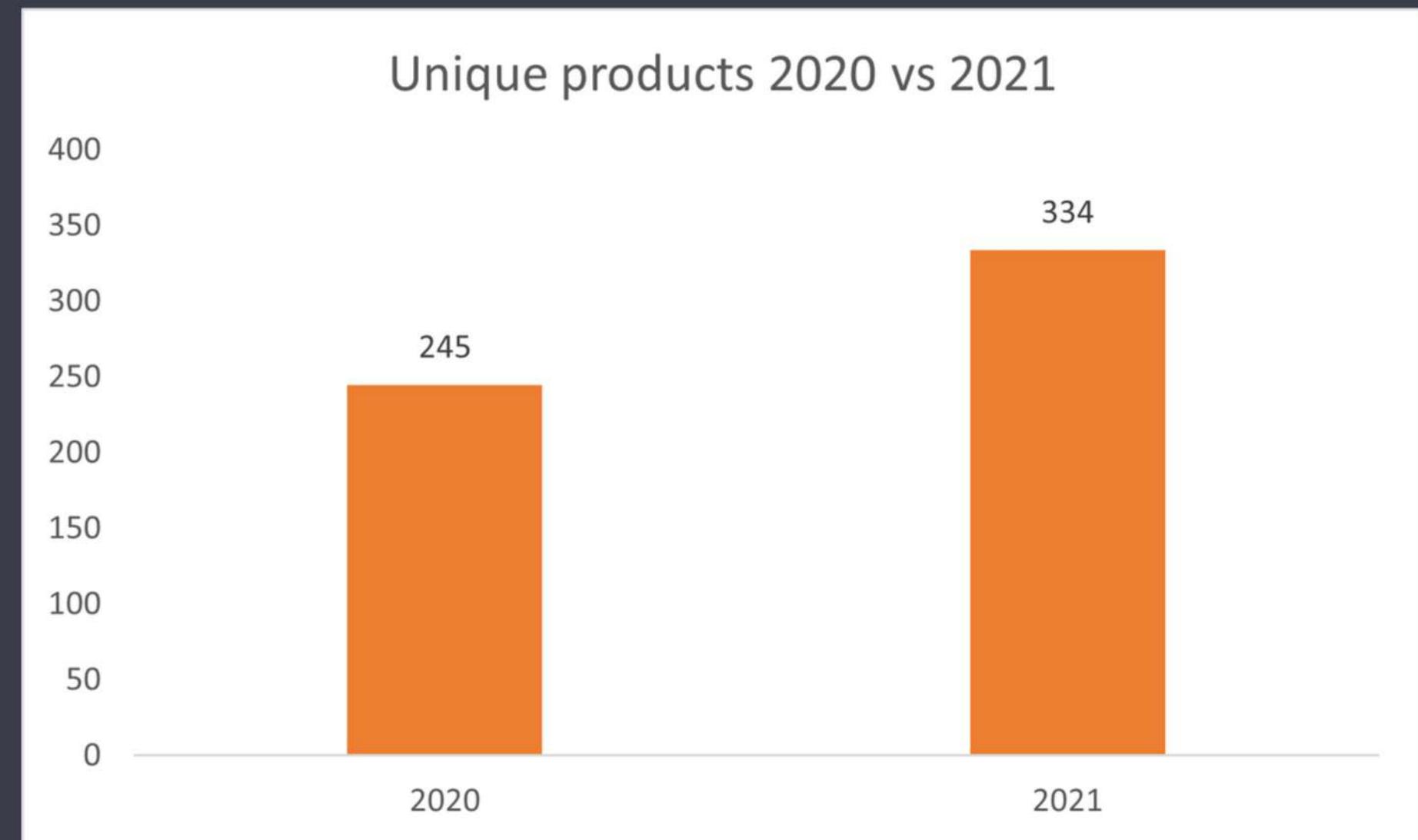
# Growth in Unique Products Year-over-Year

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

unique_products_2020	unique_products_2021	percentage_chg
245	334	36.3265





## Insights:

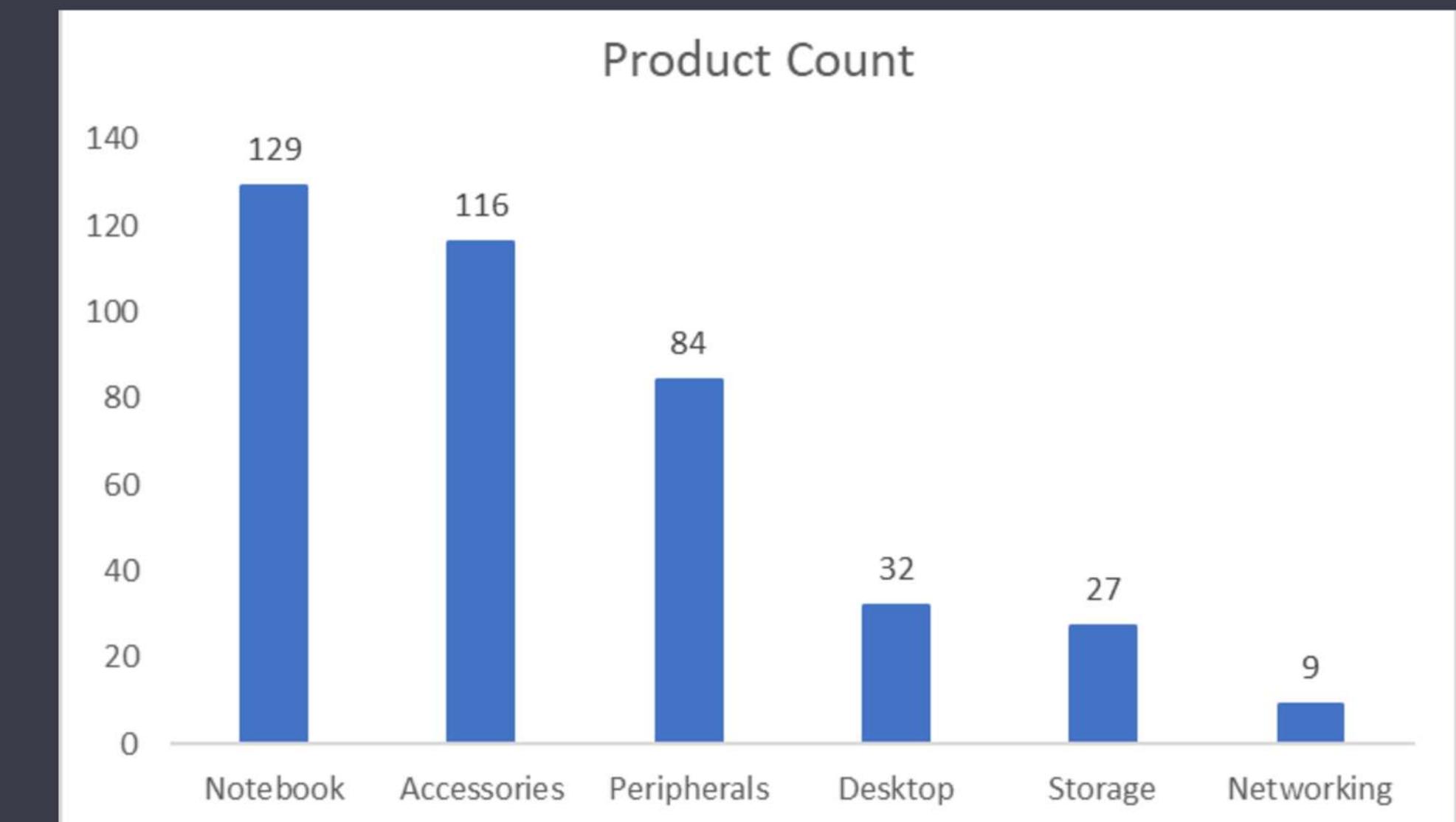
- There was a notable 36% increase in the number of unique products offered.
- Atliq Hardware significantly expanded its unique product portfolio in 2021 compared to 2020.



# Product Segment Performance

Request 3 : Provide a report with all the unique product counts for each segment and sort them in descending order of product counts. The final output contains : segment, product\_count

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





## Insights:

- Notebook segment has the highest unique product count (129), indicating it's a primary product focus.
- Accessories (116) and Peripherals (84) are also significant segments with substantial product variety.
- Networking (9) has the lowest unique product count, suggesting it's a niche segment compared to others.

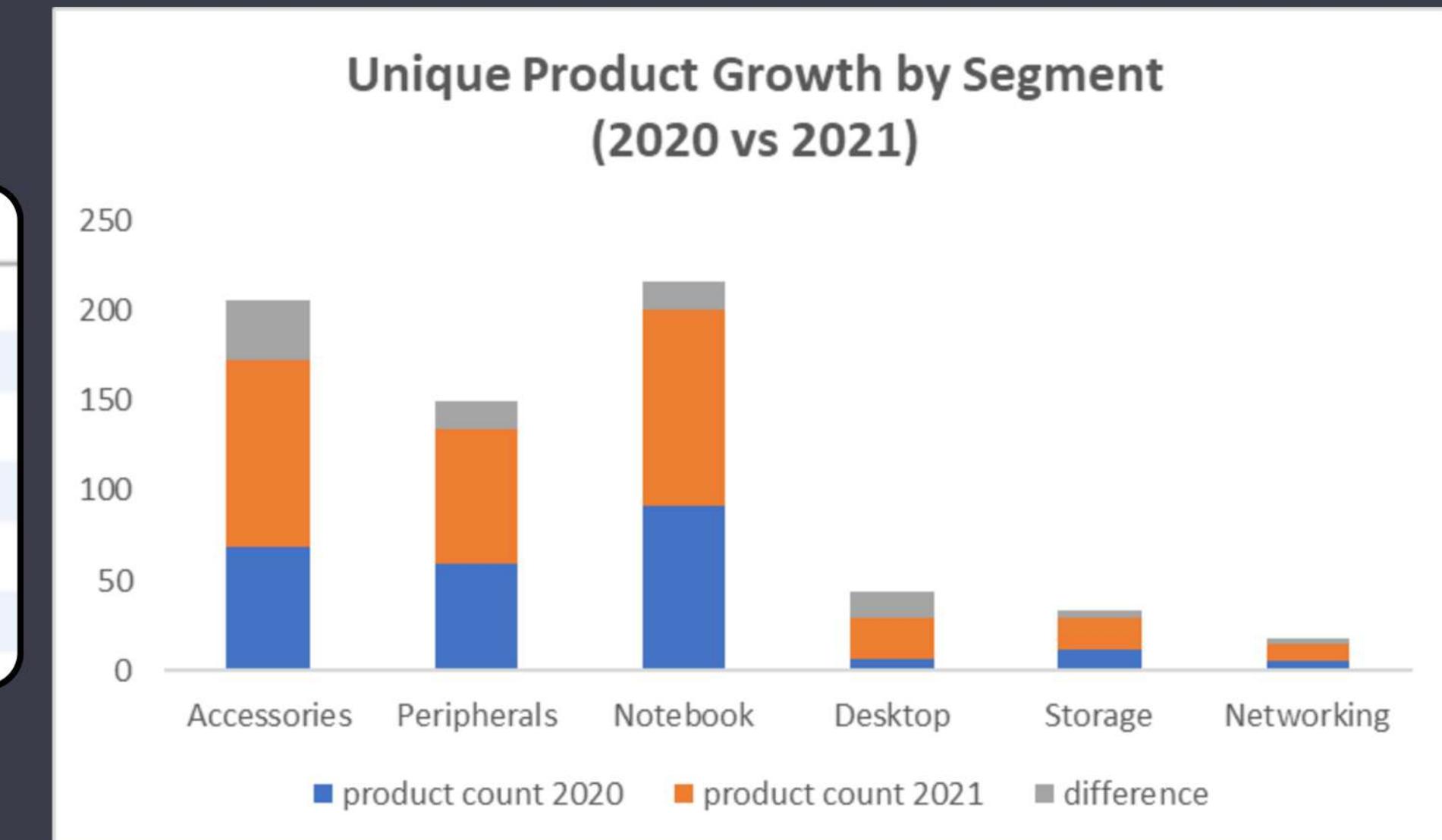


# Product Segment Performance

Request 4 : Follow up - 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

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





## Insights:

- The Accessories segment demonstrates the largest product portfolio growth, with a significant increase of 34 unique products from 2020 to 2021.
- Peripherals and Notebook segments exhibit moderate and equal growth, each adding 16 unique products.
- The Networking segment shows the smallest product growth, with only a minimal increase of 3 unique products. This suggests a different product strategy or market dynamic for the Networking segment compared to others.



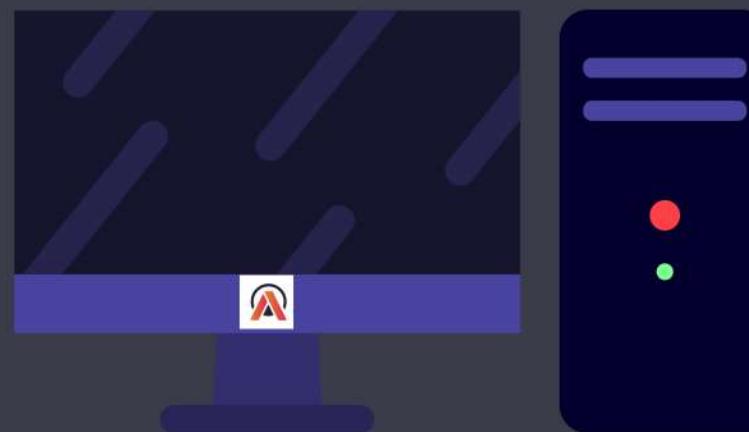
# Manufacturing Cost Optimization Opportunities

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

The final output should contain these fields :

product\_code product manufacturing\_cost

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



**Highest Manufacturing cost:**

AQ HOME Allin1 Gen 2

\$ 240.5364



**Lowest Manufacturing cost:**

AQ Master wired x1 Ms

\$ 0.8920



## Insights:

- The product "**AQ HOME Allin1 Gen 2**" has the highest manufacturing cost among the displayed products, at 240.54. This product represents the most expensive to manufacture.
- The product "**AQ Master wired x1 Ms**" has the lowest manufacturing cost among the displayed products, at just 0.89. This product is remarkably inexpensive to manufacture
- There is a very wide range in manufacturing costs across these two products. The highest cost product is approximately 270 times more expensive to manufacture than the lowest cost product



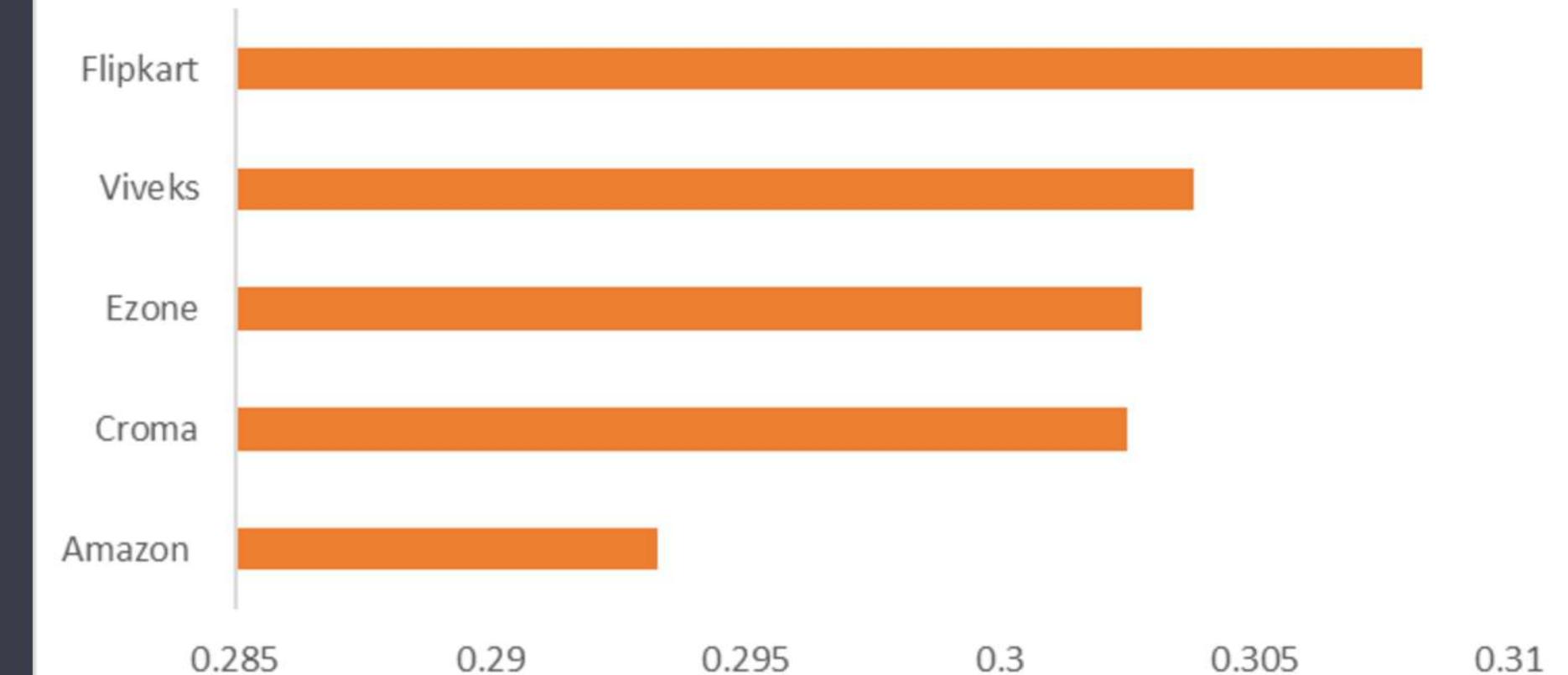
# Top Discounted Customers in India

Request 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 :

customer\_code customer average\_discount\_percentage

customer_code	customer	average_discount_percentage
90002009	Flipkart	0.3083
90002006	Viveks	0.3038
90002003	Ezone	0.3028
90002002	Croma	0.3025
90002016	Amazon	0.2933

**Top 5 Customers with Highest Average Discounts in India (FY 2021)**





## Insights:

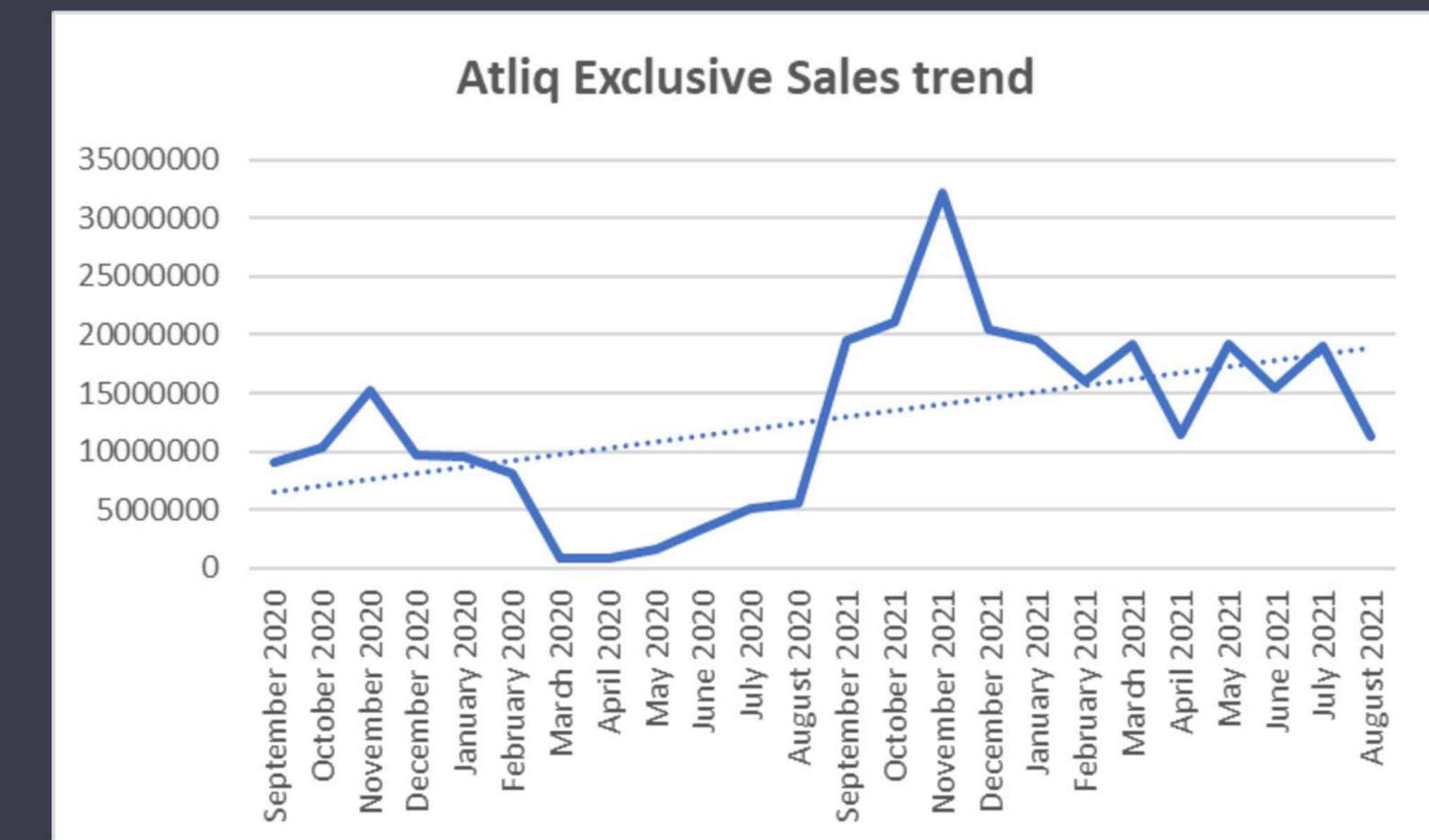
- Flipkart tops the list with the highest average pre-invoice discount percentage at 30.83%. This indicates Flipkart receives the most substantial average discounts in India.
- All of the top 5 customers receive a very high average discount percentage, all above 29% and ranging up to ~31%. This demonstrates a significant level of pre-invoice discounting for these key customers in the Indian market.



# Monthly Sales Pattern for Atliq Exclusive: Identifying Peak & Low Months

Request 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. The final report contains these columns: Month, Year, Gross sales Amount

Fiscal_Year	Month	Gross_sales_amount
2020	September	9092670.34
2020	October	10378637.60
2020	November	15231894.97
2020	December	9755795.06
2020	January	9584951.94
2020	February	8083995.55
2020	March	766976.45
2020	April	800071.95
2020	May	1586964.48
2020	June	3429736.57
2020	July	5151815.40
2020	August	5638281.83
2021	September	19530271.30
2021	October	21016218.21
2021	November	32247289.79
2021	December	20409063.18
2021	January	19570701.71
2021	February	15986603.89
2021	March	19149624.92
2021	April	11483530.30
2021	May	19204309.41
2021	June	15457579.66
2021	July	19044968.82
2021	August	11324548.34





## Insights:

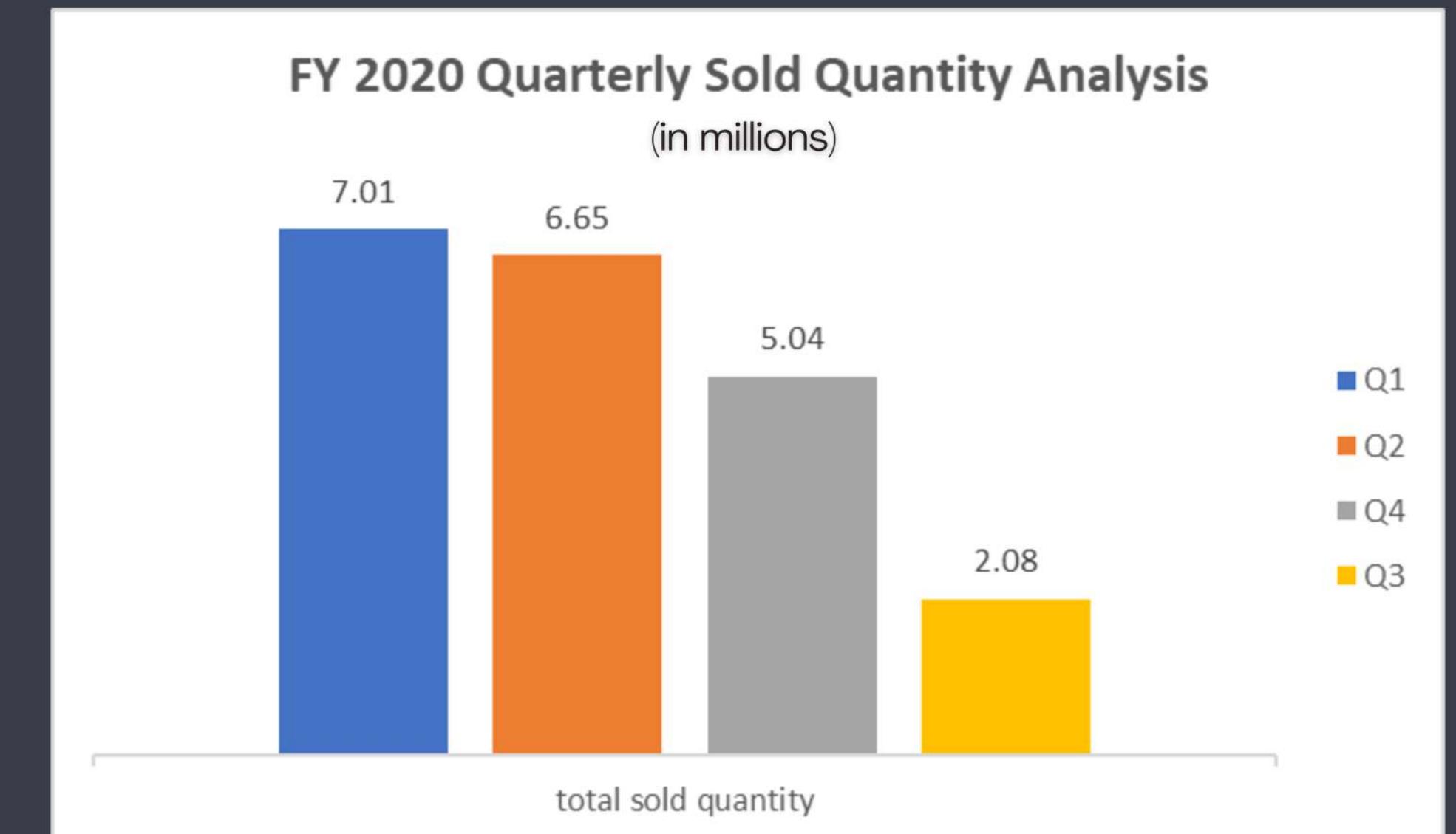
- Lowest Gross sales for both fiscal years is in March 2020.
- Highest gross sales for both fiscal year is in Novemeber 2020
- It is quite evident that lower gross sales between march and august are because of COVID-19
- However, it's a positive sign that sales picked up quickly after August, reaching their peak in November 2020.



# Peak Sales Quarter

Request 8 : In which quarter of 2020, got the maximum total\_sold\_quantity? The final output contains these fields sorted by the total\_sold\_quantity  
Quarter, total\_sold\_quantity

quarter	total_sold_quantity
Q1	7005619
Q2	6649642
Q4	5042541
Q3	2075087





## Insights:

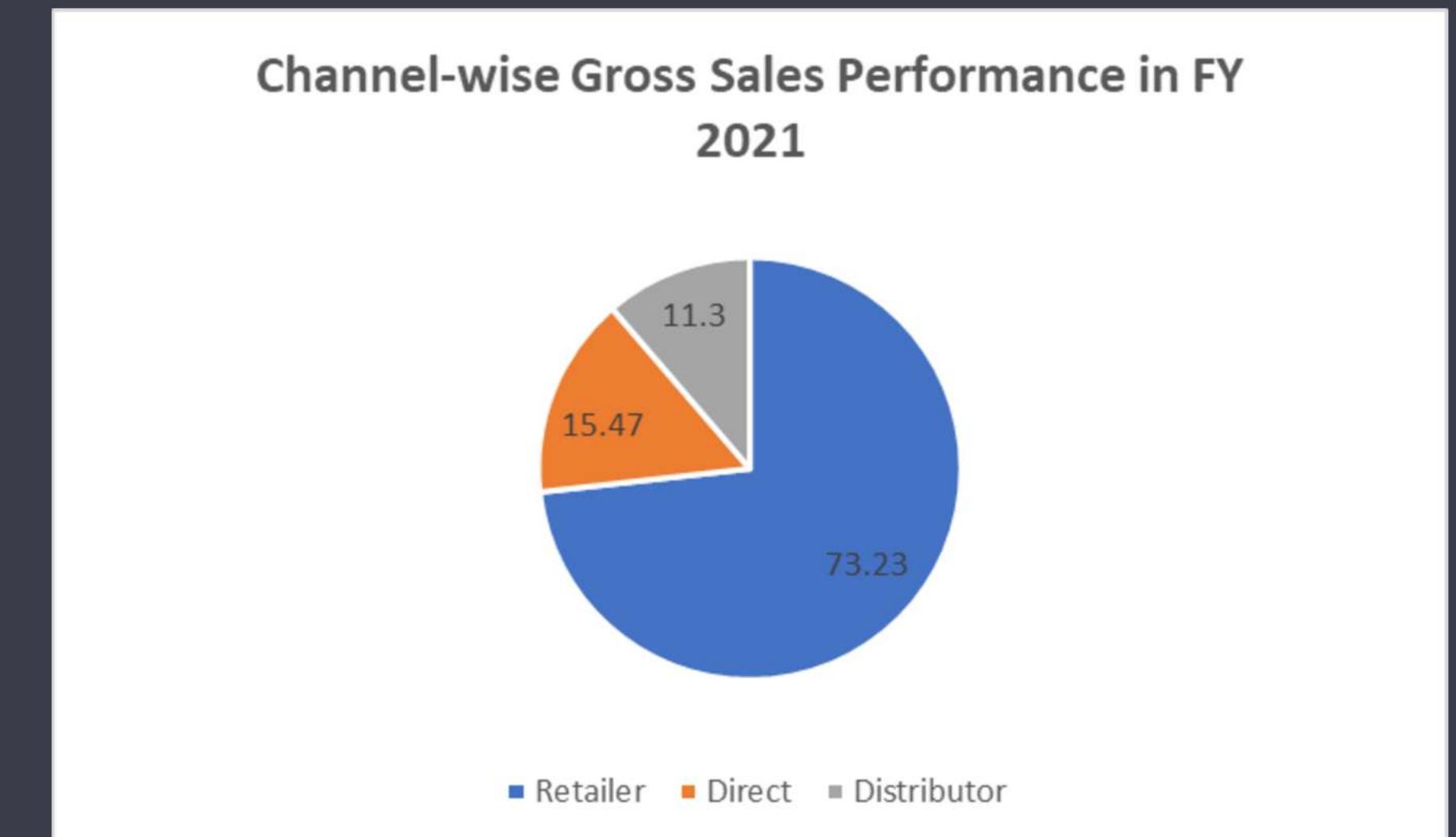
- Quarter 1 (Q1) of 2020 shows the highest total sold quantity (approximately 7 million units), significantly outperforming other quarters. This clearly identifies Q1 as the peak sales period in FY 2020.
- Quarter 2 (Q2) of 2020 is the second highest in terms of sold quantity (around 6.6 million units), indicating it's also a strong sales period
- Quarter 3 (Q3) of 2020 exhibits the lowest total sold quantity (approximately 2 million units), substantially lower than other quarters. This highlights Q3 as a notably weaker sales quarter in FY 2020.



# Retailer Dominates Gross Sales in 2021

Request 9: Which channel helped to bring more gross sales in the fiscal year 2021 and the percentage of contribution? The final output contains these fields: channel, gross\_sales\_mln, percentage

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





## Insights:

- The "Retailers" channel generated the highest gross sales in FY 2021, reaching 294.55 million. This clearly establishes Retailers as the primary sales channel driving gross revenue in FY 2021.
- The "Distributors" channel is the second-largest contributor to gross sales in FY 2021, with 126.78 million. While substantially less than Retailers, Distributors still represent a significant sales channel.
- Direct sales make a minor contribution to the overall gross sales in FY 2021 compared to Retailers and Distributors.



# Top 3 Products by Division

Request 10: Get the Top 3 products in each division that have a high total\_sold\_quantity in the fiscal\_year 2021? The final output contains these fields: division, product\_code, product, total\_sold\_quantity, rank\_order

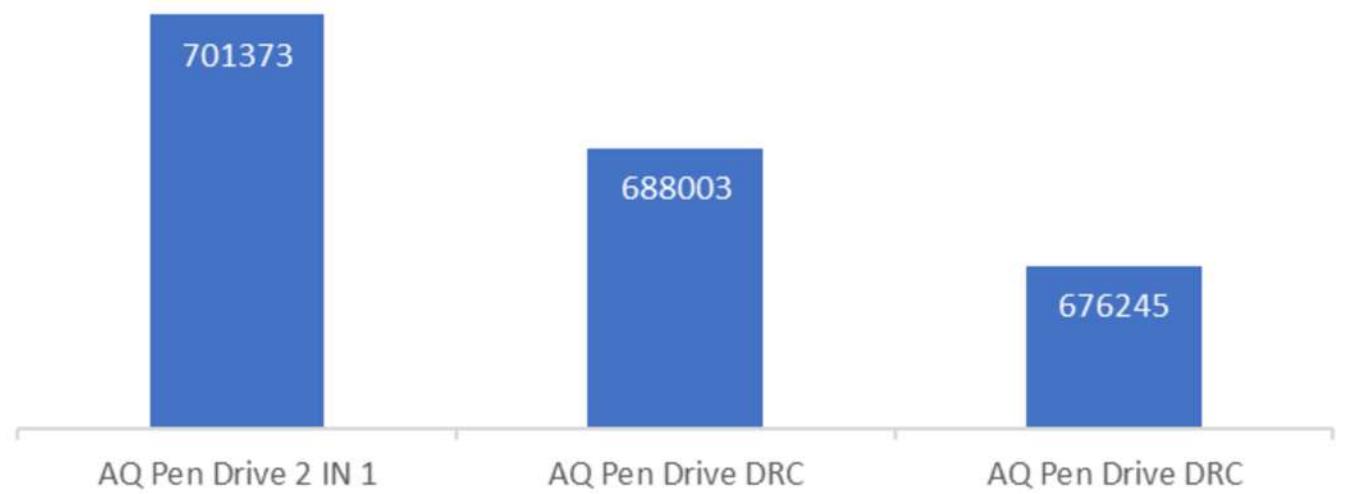
product	product_code	division	total_sold_quantity	rank_order
AQ Pen Drive 2 IN 1	A6720160103	N & S	701373	1
AQ Pen Drive DRC	A6818160202	N & S	688003	2
AQ Pen Drive DRC	A6819160203	N & S	676245	3
AQ Gamers Ms	A2319150302	P & A	428498	1
AQ Maxima Ms	A2520150501	P & A	419865	2
AQ Maxima Ms	A2520150504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

## INSIGHTS

- N&S - Clearly indicates that Pen Drives are the primary volume drivers for the N&S division
- P&A - Mice as the key product category contributing to sales volume in the P&A division.
- PC - The total sold quantities for the top 3 products in the PC (Personal Computer) division are dramatically lower than those in the N&S and P&A divisions.
- This stark difference in sales volume suggests that individual PC products, even the top sellers, have significantly lower sales volume compared to top-selling Pen Drives and Mice.

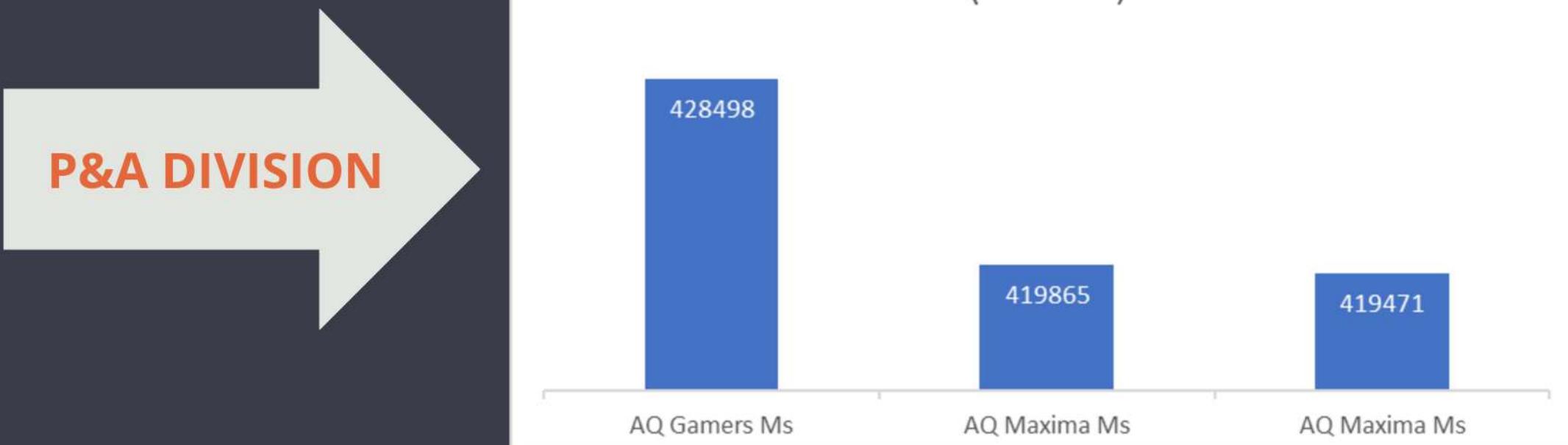


Top 3 Products by Sold Quantity - N&S Division  
(FY 2021)



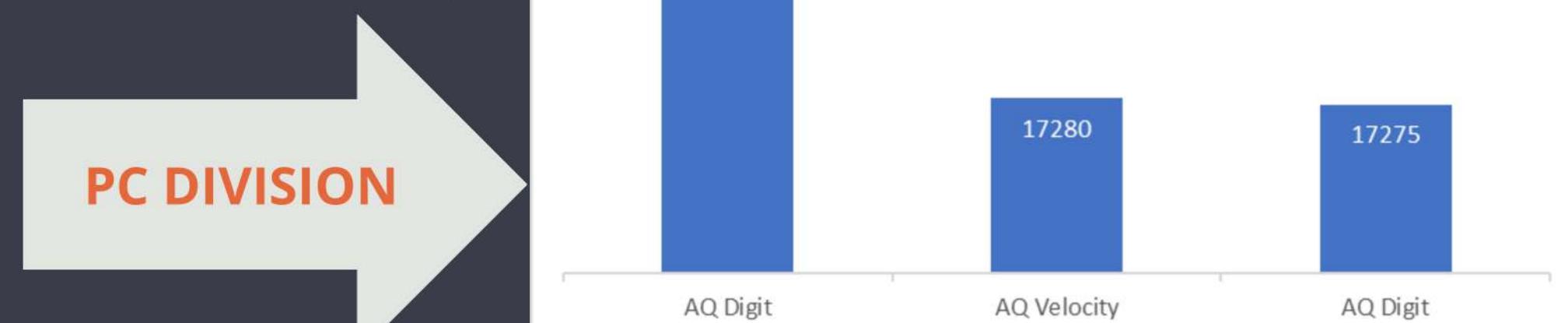
N&S DIVISION

Top 3 Products by Sold Quantity - P & A Division  
(FY 2021)



P&A DIVISION

Top 3 Products by Sold Quantity - PC Division (FY 2021)



PC DIVISION



# Key Recommendations

- **Leverage APAC Market Strength:** Focus marketing & distribution for Atliq Exclusive in key APAC markets.
- **Prioritize Accessories & Growth Segments:** Invest in Accessories (highest growth). Sustain Peripherals & Notebook growth. Re-evaluate Networking strategy.
- **Optimize Retail Channel:** Strengthen Retail partnerships (dominant channel). Enhance Distributor performance; assess Direct channel potential.
- **Strategic Discount Management:** Optimize India discount programs for top e-commerce/retail customers for profitability and retention.
- **Capitalize on Sales Seasonality:** Leverage November peak and consistent monthly patterns for targeted marketing & inventory. Prepare for strong Q1 sales.
- **Focus on Division Leaders:** Build on Pen Drive (N&S) & Mice (P&A) strengths in product development & marketing. Boost PC division sales.



**THANK YOU!**