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<https://codebasics.io/challenges/codebasics-resume-project-challenge/7>



*AtliQ Hardwares (imaginary company) data driven insights using SQL (mySQL) through 10 ad-hoc requests.*

- 1) practical reference for learners who are studying SQL, MySQL, or Data Analytics**
- 2) Raw queries translated into real-world business insights**

**Background:**

**AtliQ Hardwares (imaginary company) is one of the leading computer hardware producers in India and has expanded well in other countries too.**

**Problem:**

**Not enough insights to make quick and smart data-informed decisions.**

**Solutions:**

**Tony Sharma, their data analytics director conduct a SQL challenge, which will help him understand both skills. (Technical & Soft)**

**Presentations:**

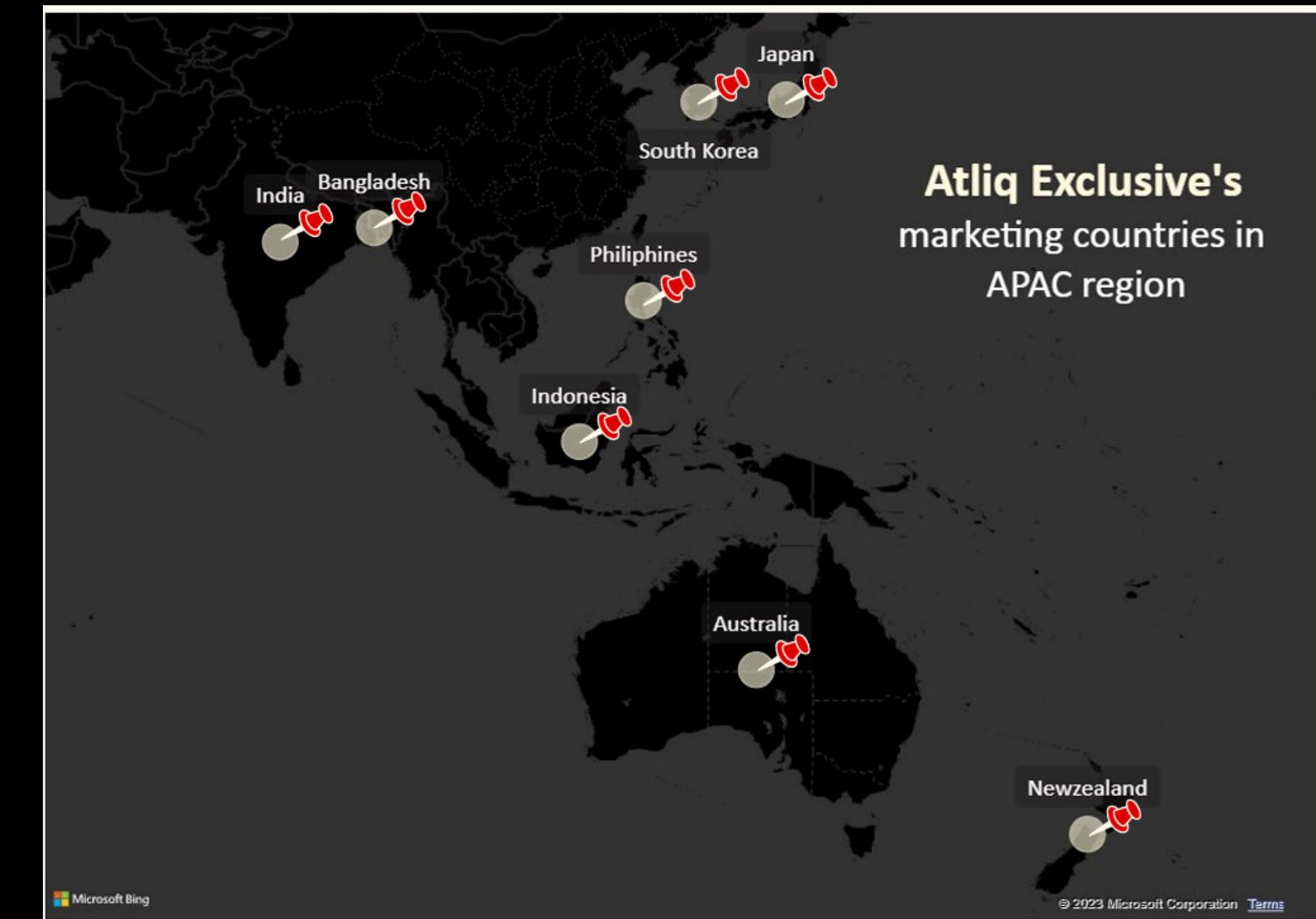
**10 ad hoc requests for which the business needs insights.**

# AtliQ Hardwares (imaginary company) data driven insights

Request 1:

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

market
India
Indonesia
Japan
Philippines
South Korea
Australia
Newzealand
Bangladesh



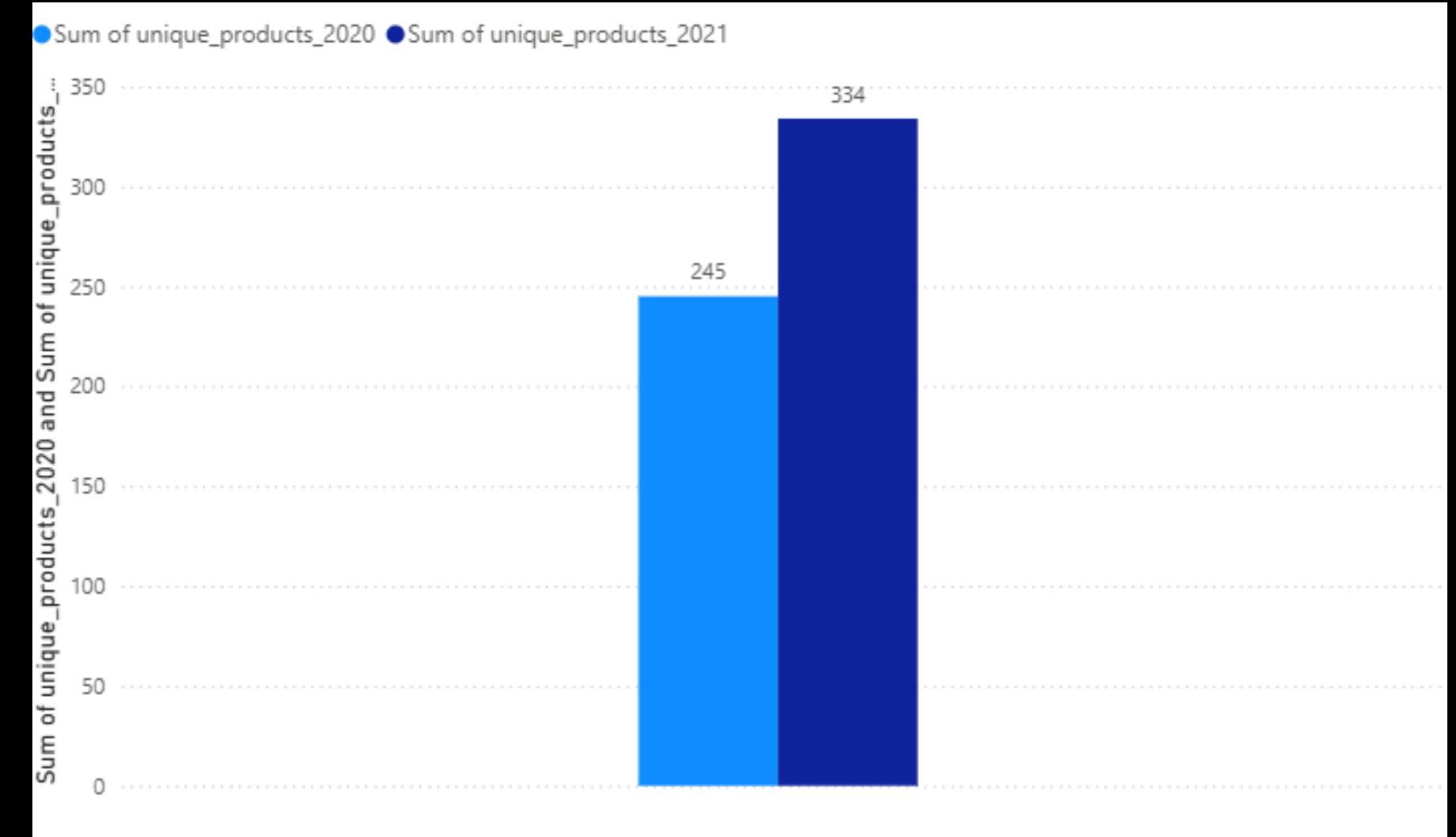
Insights: Identified all markets where Atliq Exclusive operates across the APAC region, giving visibility into its regional business presence and potential expansion areas.

# AtliQ Hardwares (imaginary company) data driven insights

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	36.33

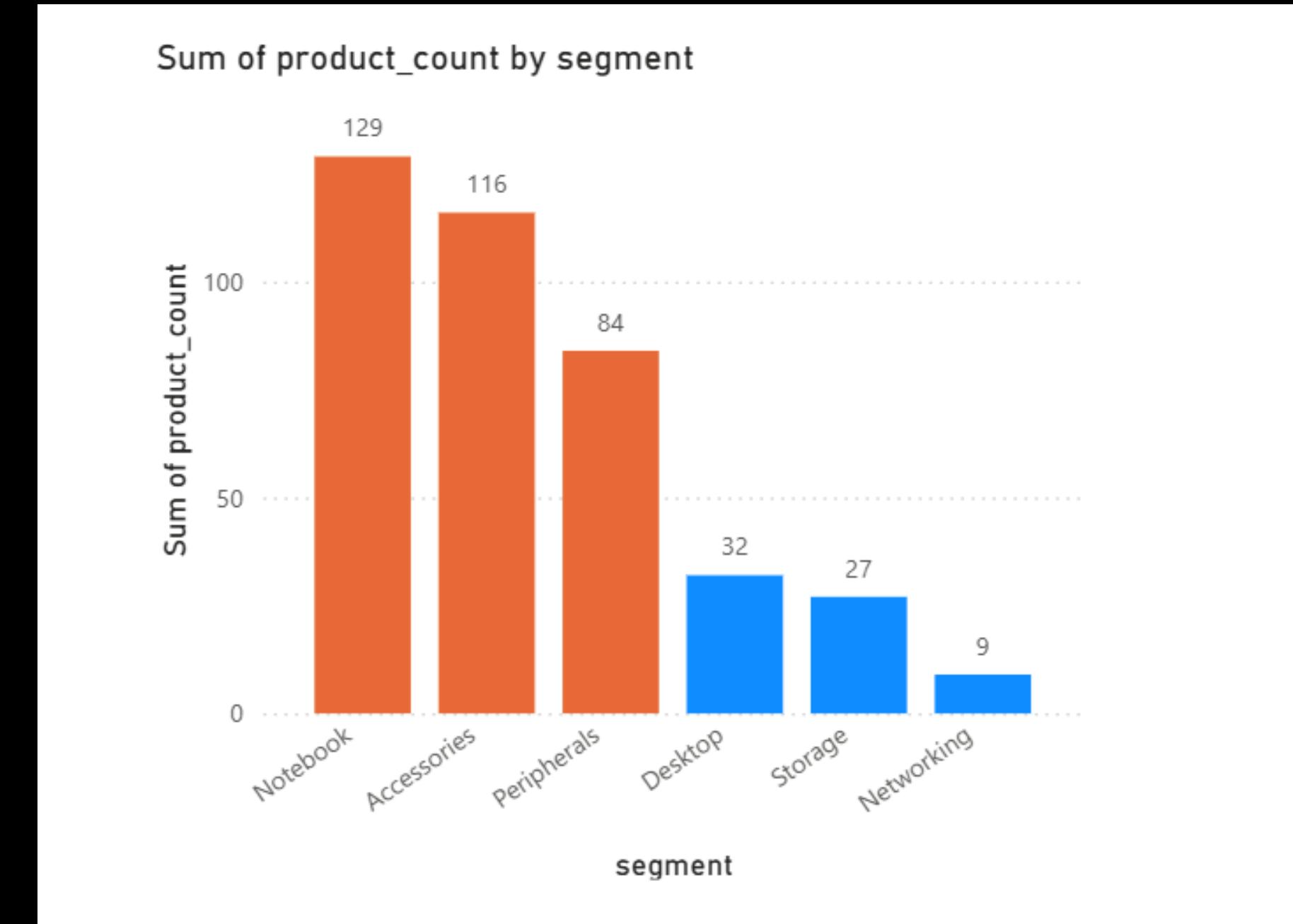


**Insights:** The analysis highlights the growth rate of new product introductions between 2020 and 2021, helping assess innovation pace and its possible influence on sales performance.

# AtliQ Hardwares (imaginary company) data driven insights

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 2 fields, segment & product\_count

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

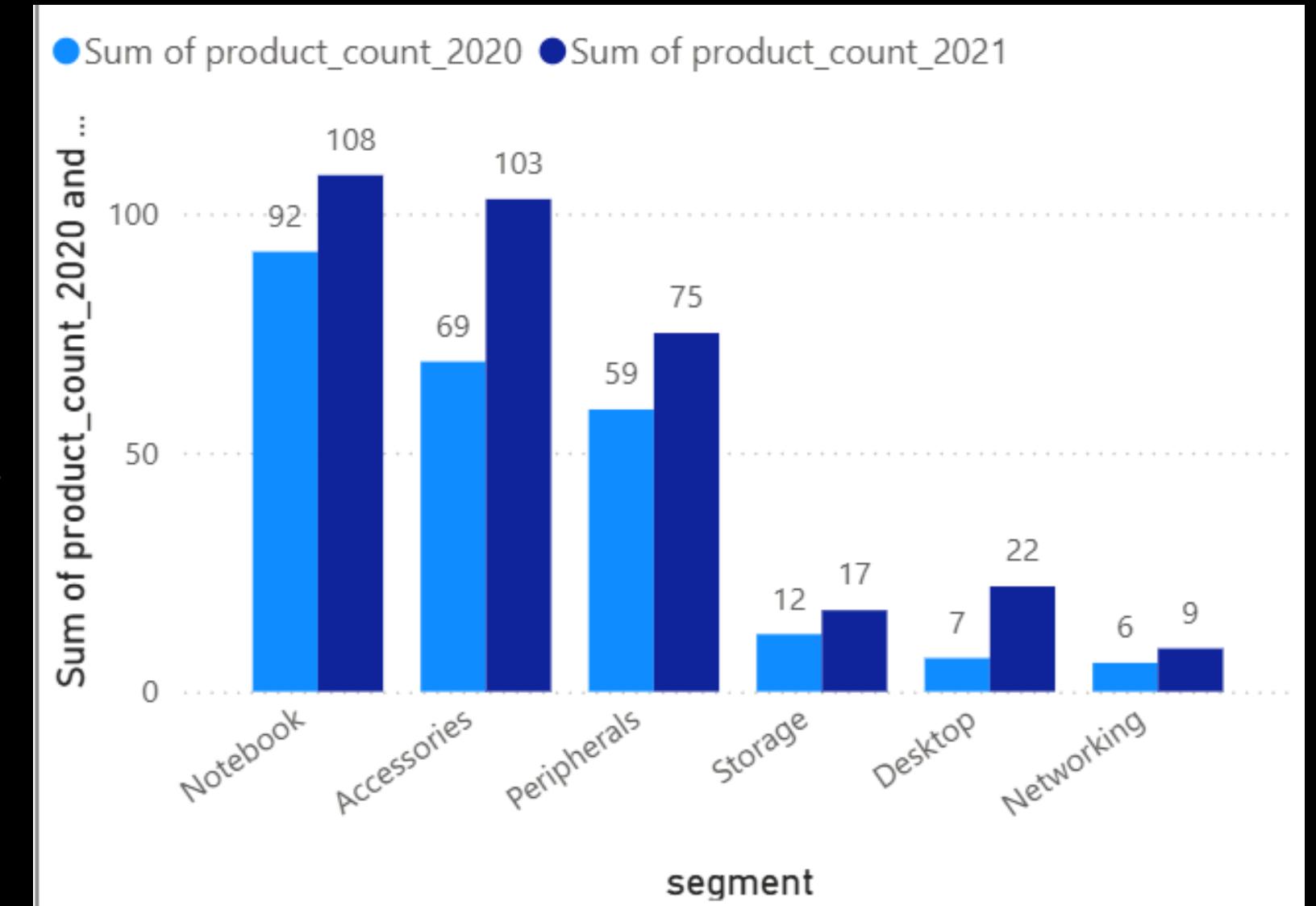


Insights: Provides a clear view of product diversity across different segments, supporting decisions on which segments contribute most to the product portfolio and where to optimize manufacturing focus.

# AtliQ Hardwares (imaginary company) data driven insights

Requests 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

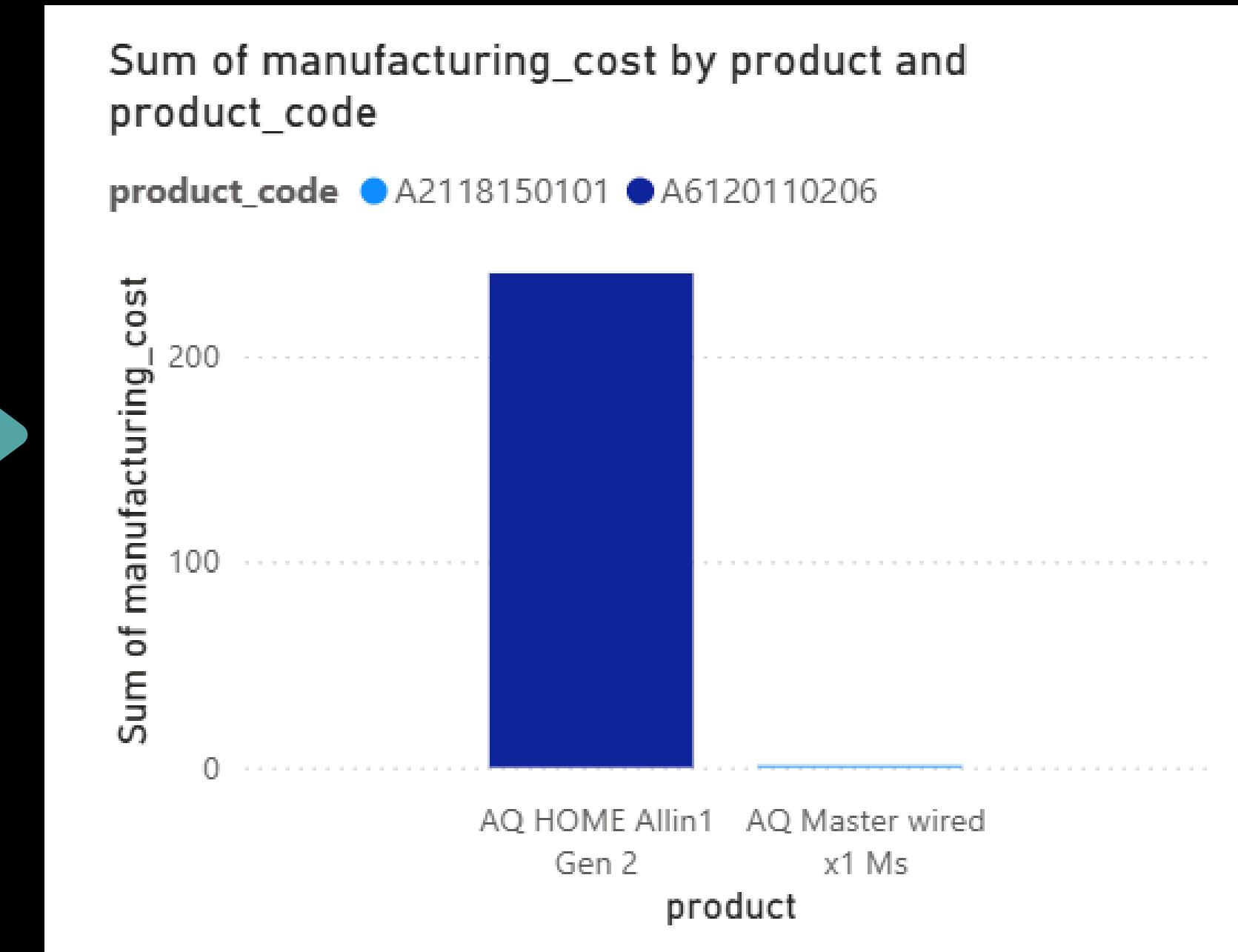
segment	product_count_2020	product_count_2021	difference
Accessories	69	103	34
Notebook	92	108	16
Peripherals	59	75	16
Desktop	7	22	15
Storage	12	17	5
Networking	6	9	3



**Insights:** Helps identify which segments expanded most in terms of unique products and which ones lagged, guiding marketing or R&D investment strategies for underperforming areas.

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

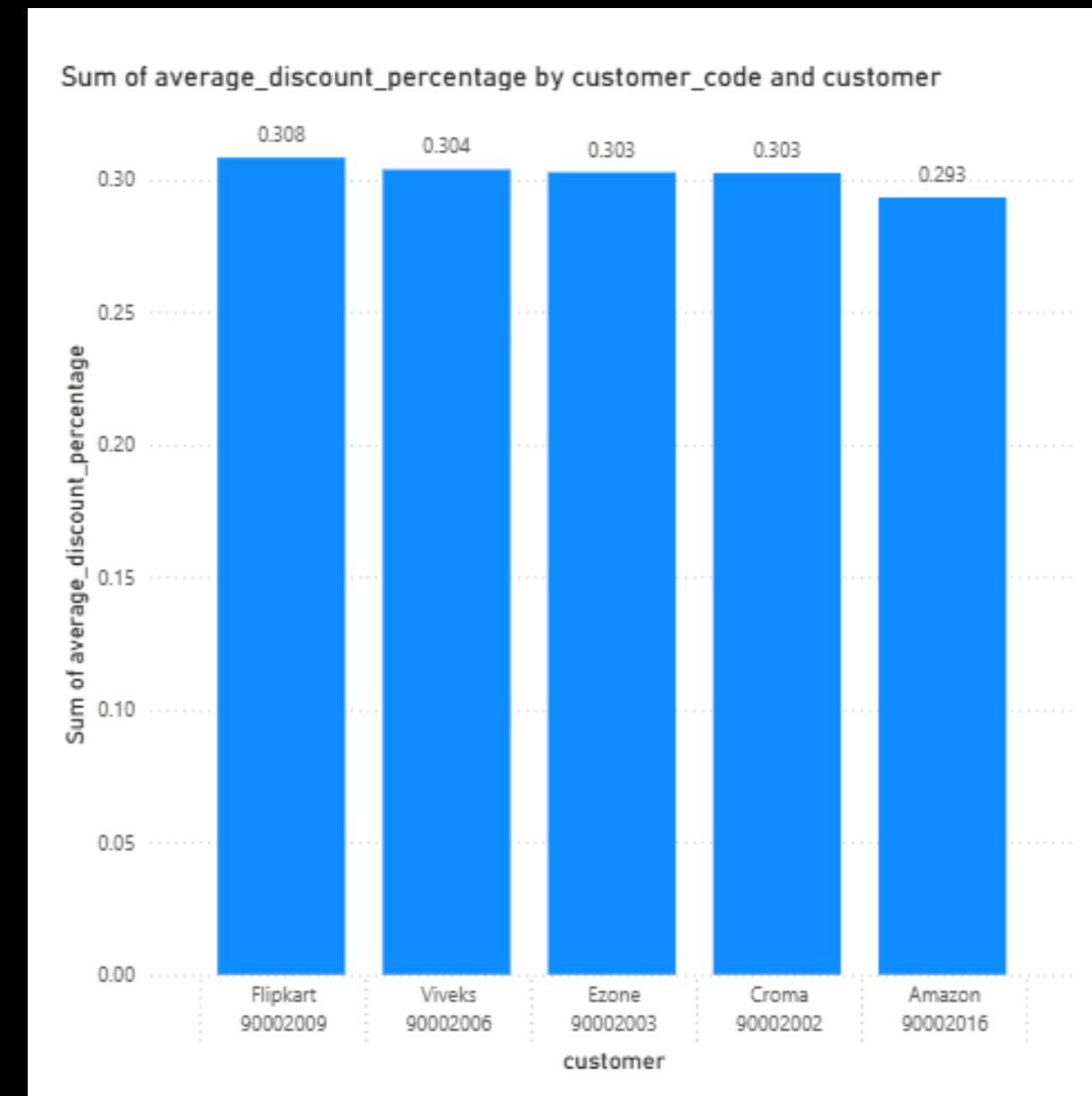


**Insights:** Highlights cost variations across products, enabling management to review pricing strategies, cost optimization, and supplier negotiations for high-cost products.

# AtliQ Hardwares (imaginary company) data driven insights

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

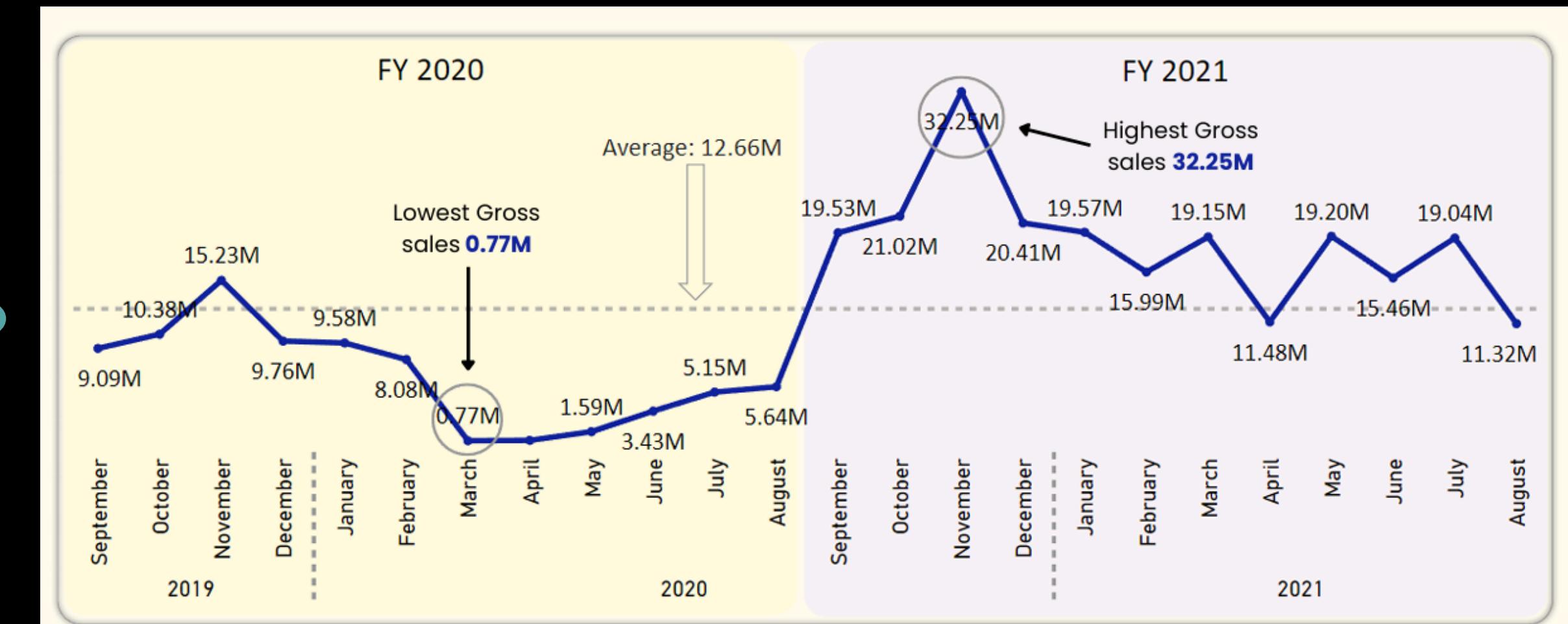


**Insights:** Evaluates discount distribution among key customers to assess whether high discounts are aligned with their sales contribution or require policy adjustments.

# AtliQ Hardwares (imaginary company) data driven insights

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

Month	Year	Gross sales Amount
9	2019	4496259.672
10	2019	5135902.347
11	2019	7522892.561
12	2019	4830404.729
1	2020	4740600.161
2	2020	3996227.766
3	2020	378770.97
4	2020	395035.3535
5	2020	783813.4238
6	2020	1695216.601
7	2020	2551159.158
8	2020	2786648.26
9	2020	12353509.79
10	2020	13218636.2
11	2020	20464999.1
12	2020	12944659.65
1	2021	12399392.98
2	2021	10129735.57
3	2021	12144061.25
4	2021	7311999.955
5	2021	12150225.01
6	2021	9824521.011
7	2021	12092346.32
8	2021	7178707.59

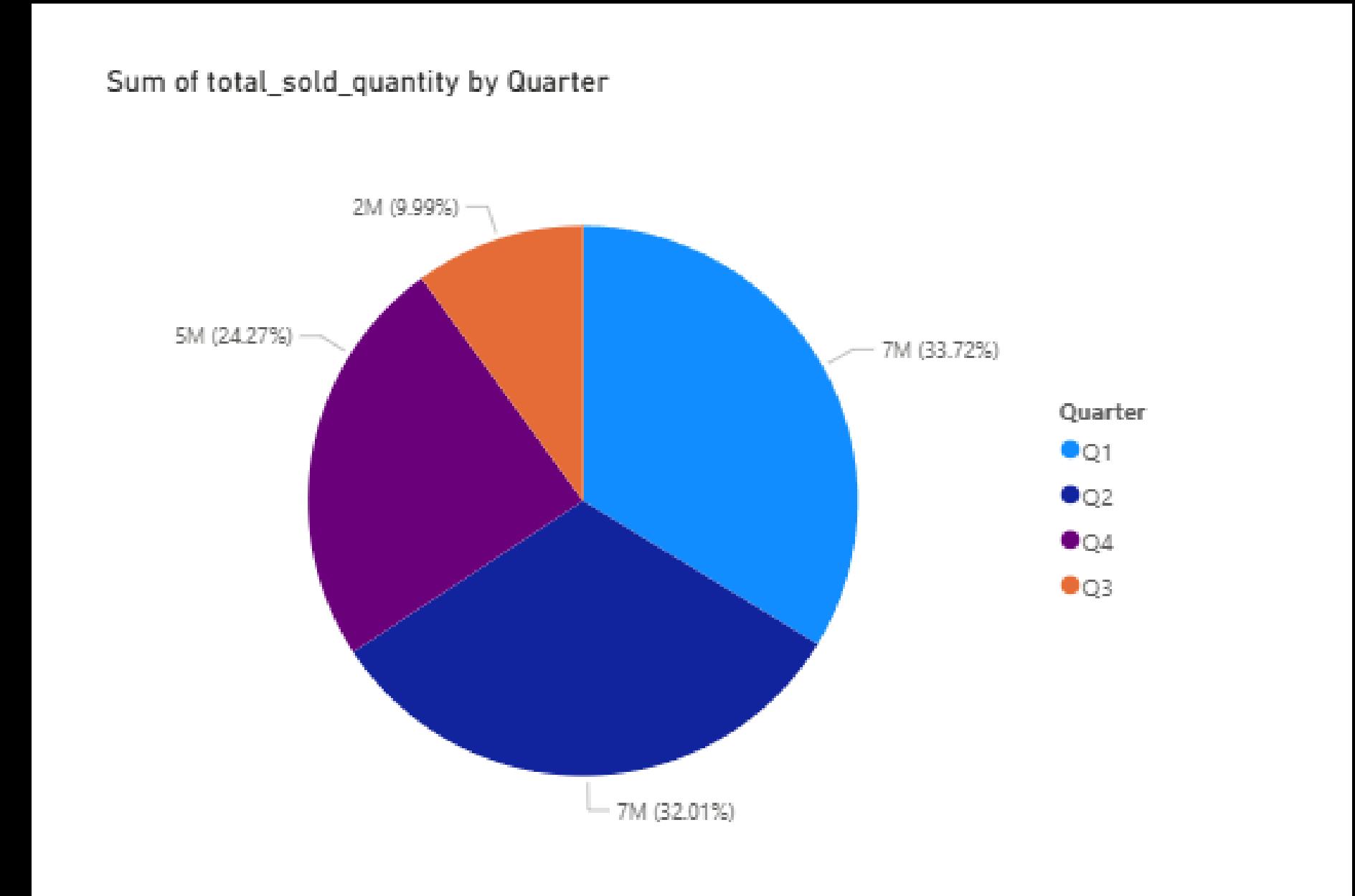


Insights: Tracks monthly performance trends to identify high and low-performing months, assisting in planning promotions, budgeting, and resource allocation.

# AtliQ Hardwares (imaginary company) data driven insights

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

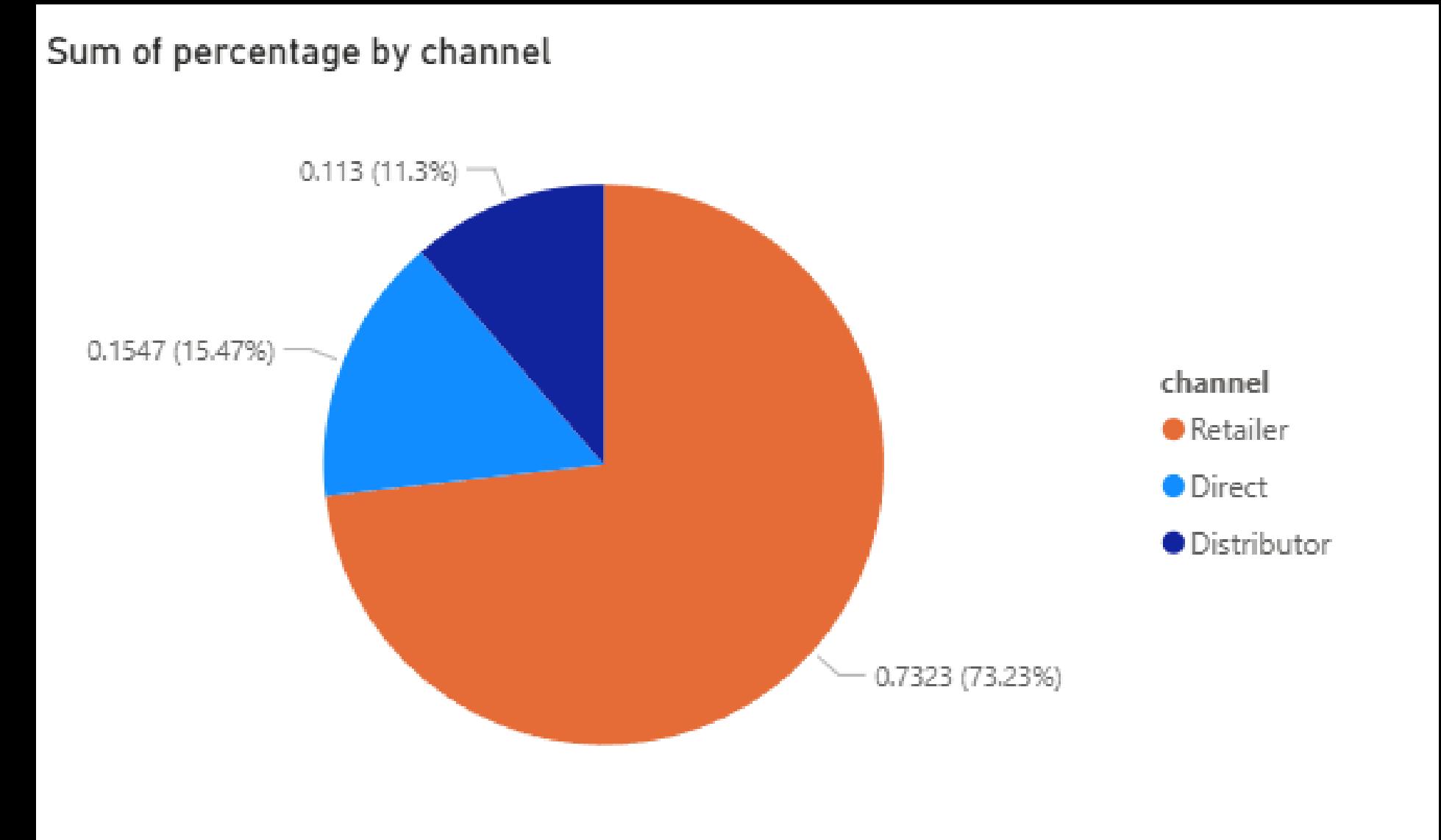


Insights: Reveals sales seasonality by quarter, highlighting peak and low demand periods to optimize inventory and marketing campaigns in future fiscal cycles.

# AtliQ Hardwares (imaginary company) data driven insights

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 M	73.23 %
	Distributor	188.03 M	11.30 %
	Direct	257.53 M	15.47 %

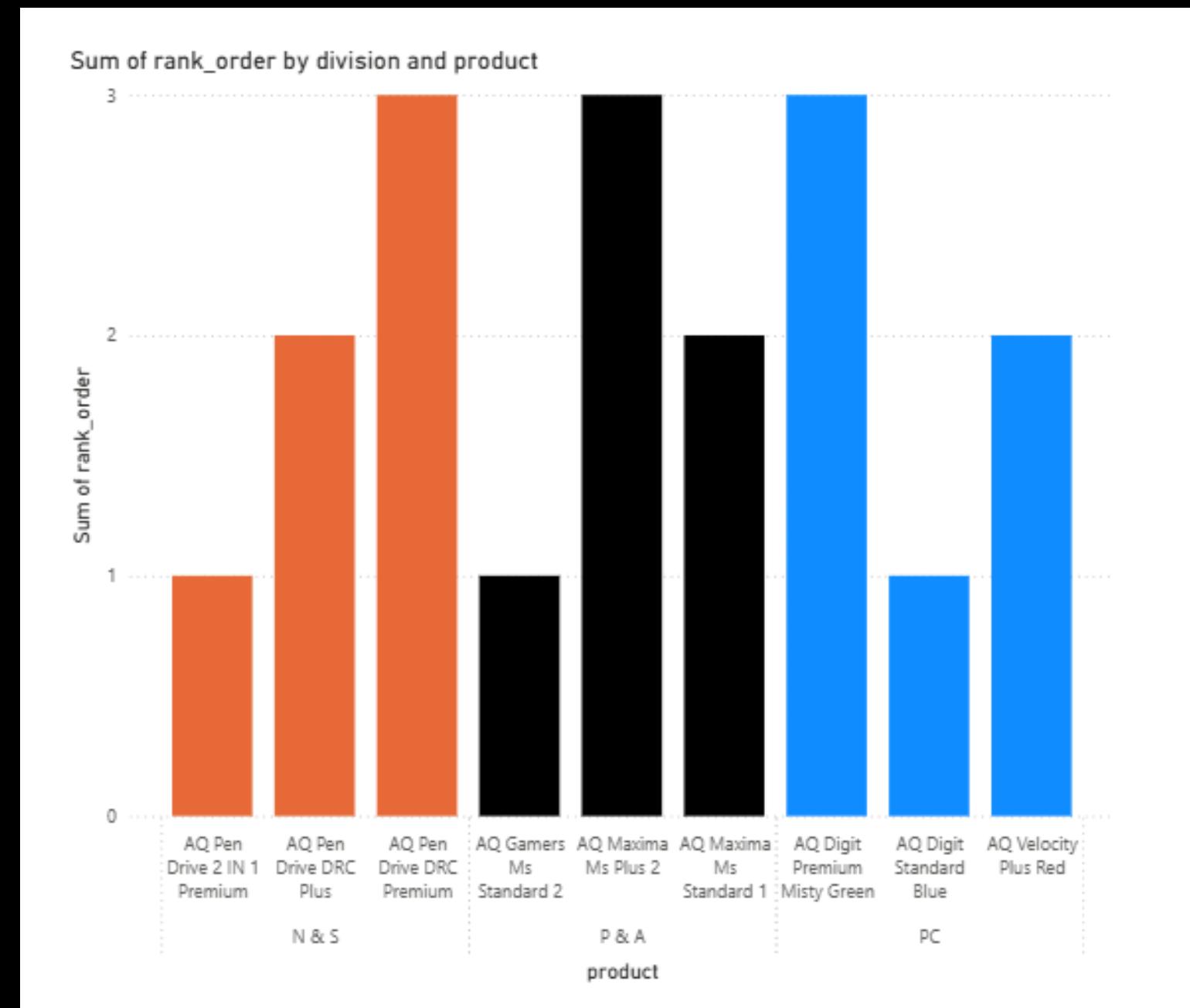


Insights: Shows which sales channel (Retailer, Distributor, or Direct) drives the highest revenue share, helping refine channel strategies and partnership priorities.

# AtliQ Hardwares (imaginary company) data driven insights

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

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



Insights: Identifies best-selling products in each division, where variants of the same product may dominate, indicating strong brand performance or product preference patterns.

# Thank You!



Dhaval Patel Sir



Code Basics Team

A screenshot of a web browser displaying the Code Basics website. The page features a banner for an AI Engineer Roadmap and a 'New Launch' announcement. Below this, there's a section for 'Winners - Challenge #4' showing five winners with their names and LinkedIn profiles. To the right, there's a 'Congratulations' message and a video player showing a man in a red shirt. The challenge section details a task about management in the consumer goods domain for Atliq Hardwares, mentioning a need for data analysts. A progress bar indicates the task is 24.26% complete. The bottom right corner shows a small video thumbnail of three people.