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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:

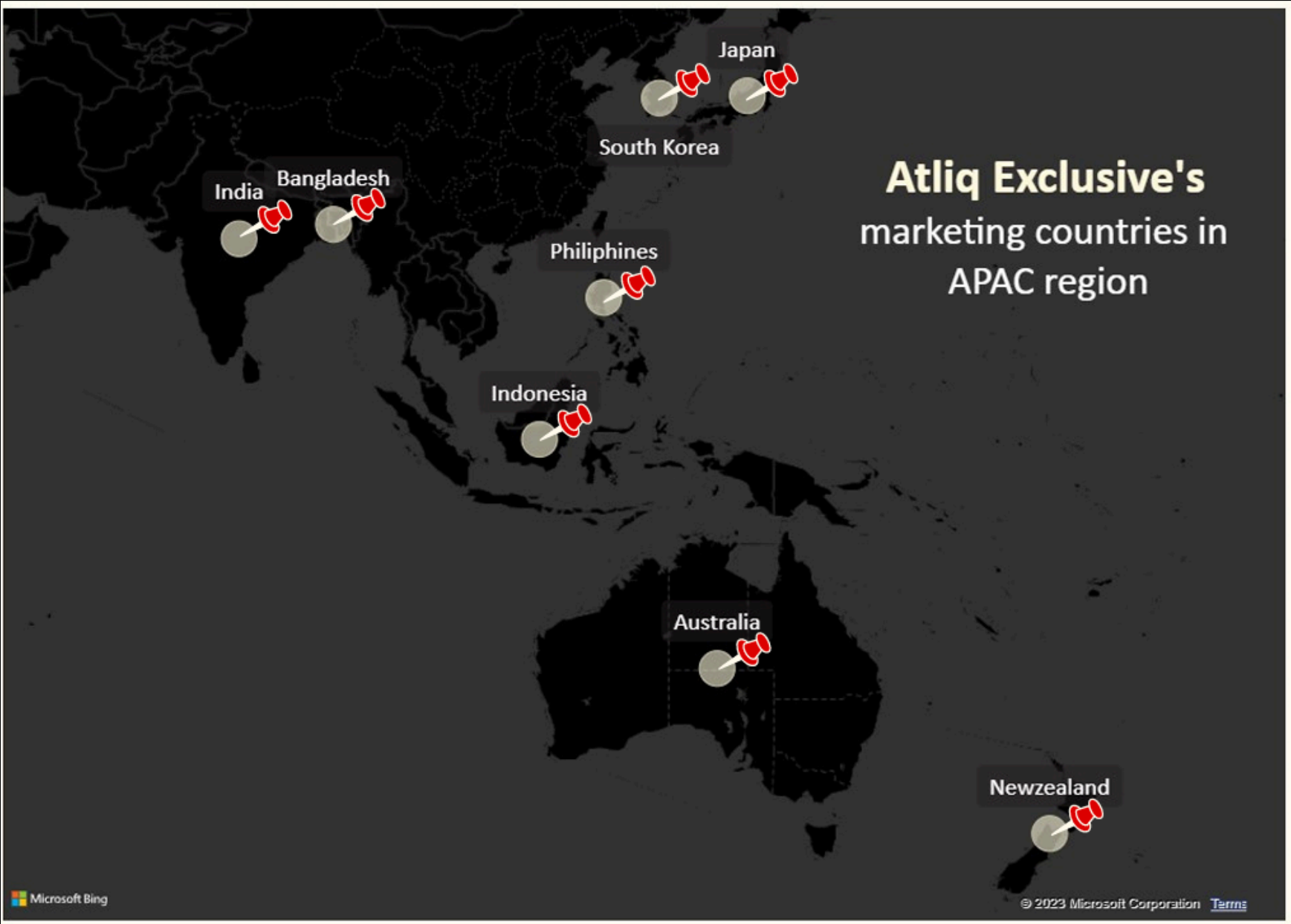
10 ad hoc requests for which the business needs insights.

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
	Philiphines
	South Korea
	Australia
	Newzealand
	Bangladesh

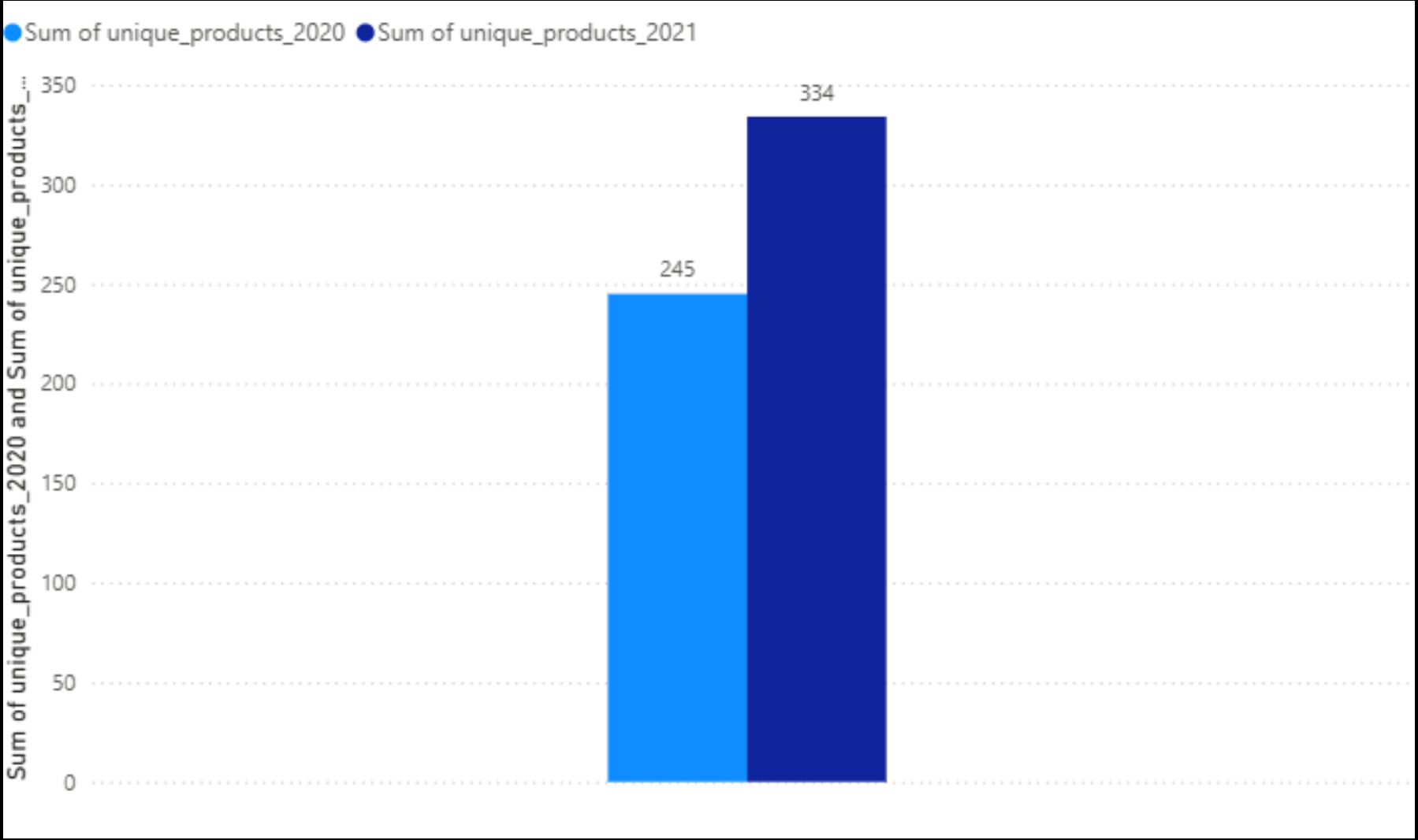


Insights: Identified all markets where Atliq Exclusive operates across the APAC region, giving visibility into its regional business presence and potential expansion areas.

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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

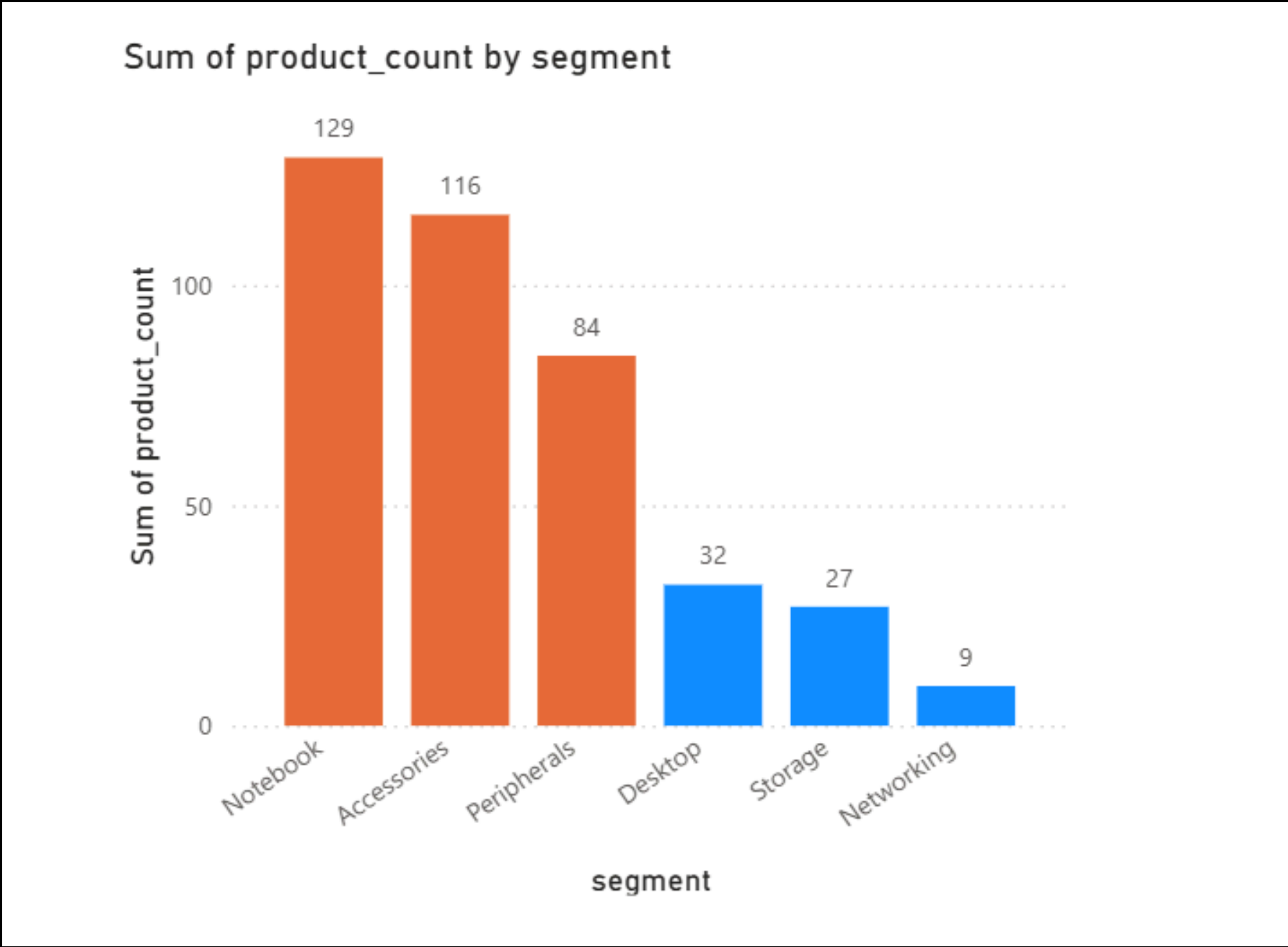


Insights: The analysis highlights the growth rate of new product introductions between 2020 and 2021, helping assess innovation pace and its possible influence on sales performance.

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



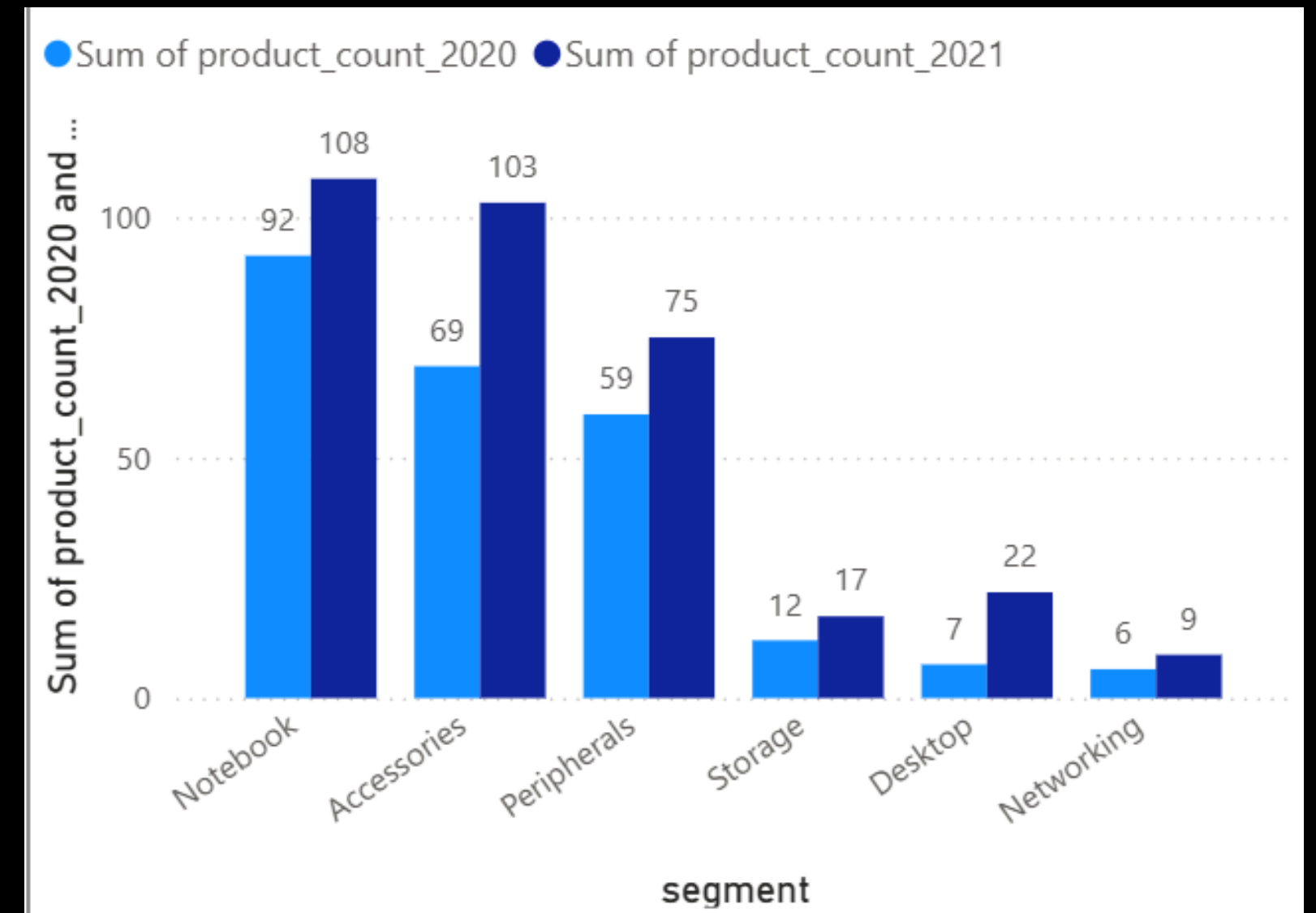
Insights: Provides a clear view of product diversity across different segments, supporting decisions on which segments contribute most to the product portfolio and where to optimize manufacturing focus.

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

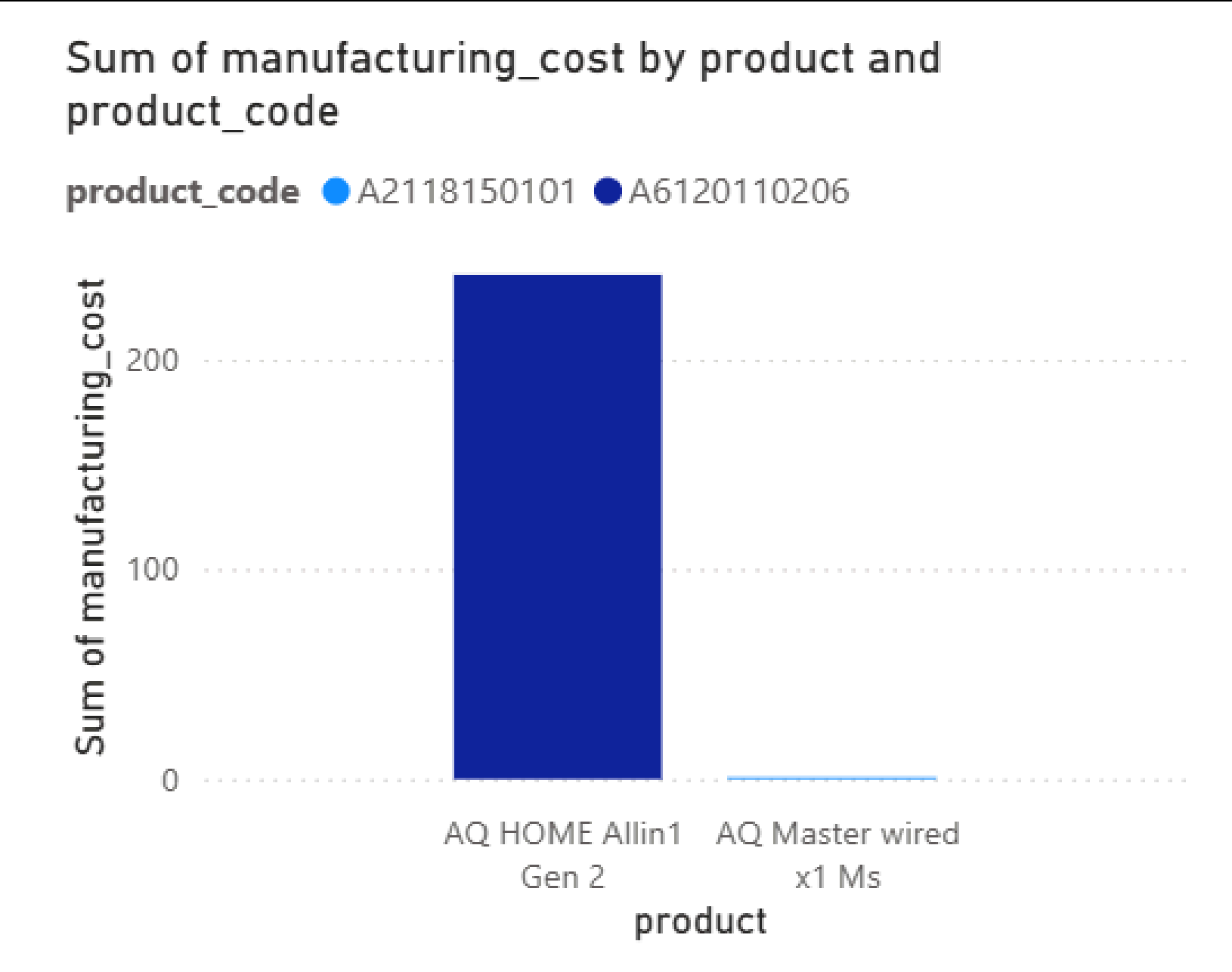
	segment	product_count_2020	product_count_2021	difference
▶	Accessories	69	103	34
	Notebook	92	108	16
	Peripherals	59	75	16
	Desktop	7	22	15
	Storage	12	17	5
	Networking	6	9	3



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

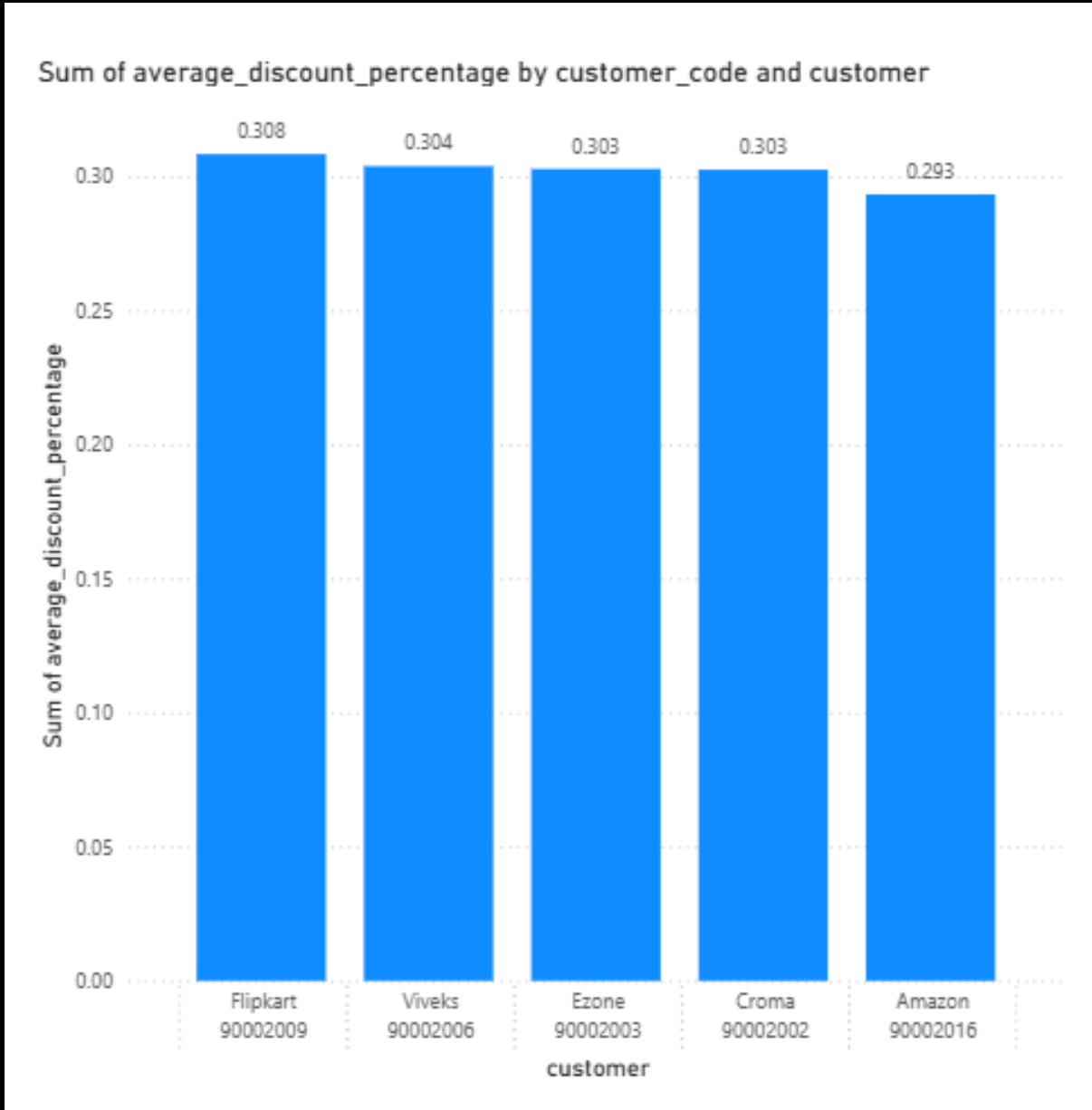


Insights: Highlights cost variations across products, enabling management to review pricing strategies, cost optimization, and supplier negotiations for high-cost products.

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

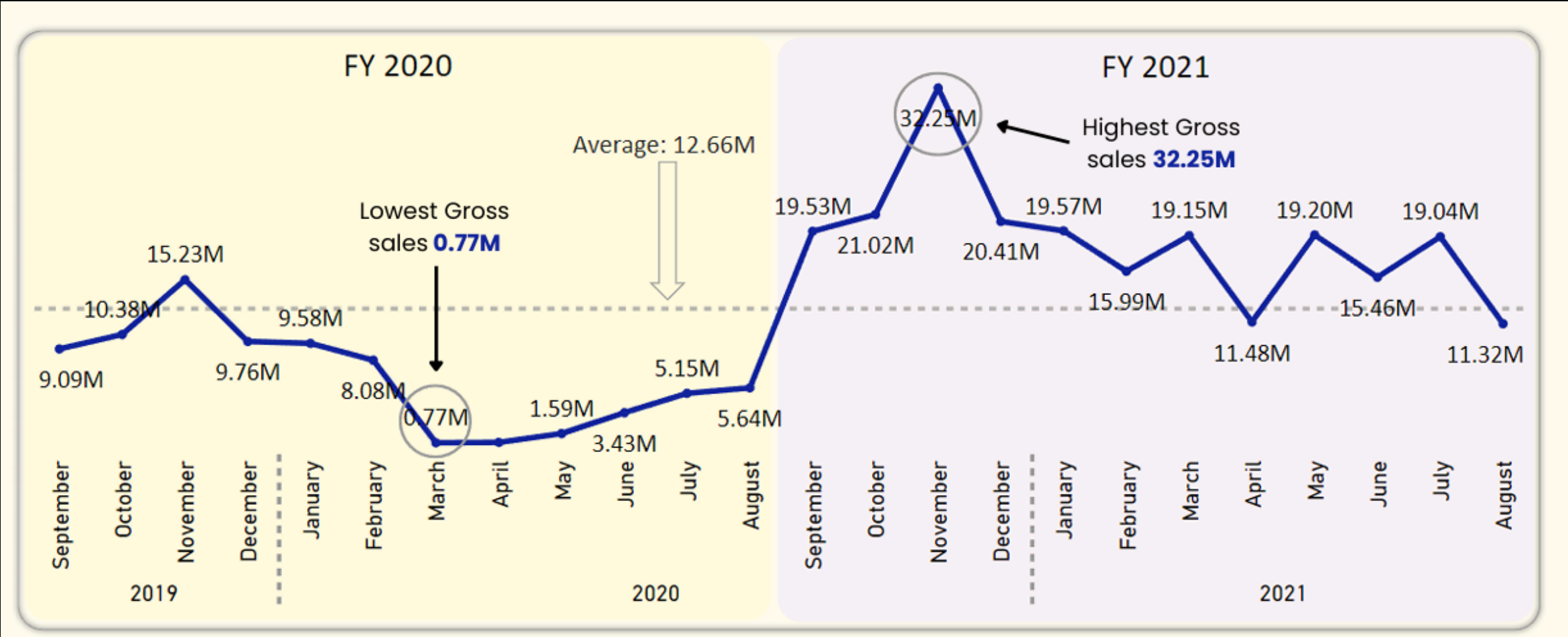


Insights: Evaluates discount distribution among key customers to assess whether high discounts are aligned with their sales contribution or require policy adjustments.

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

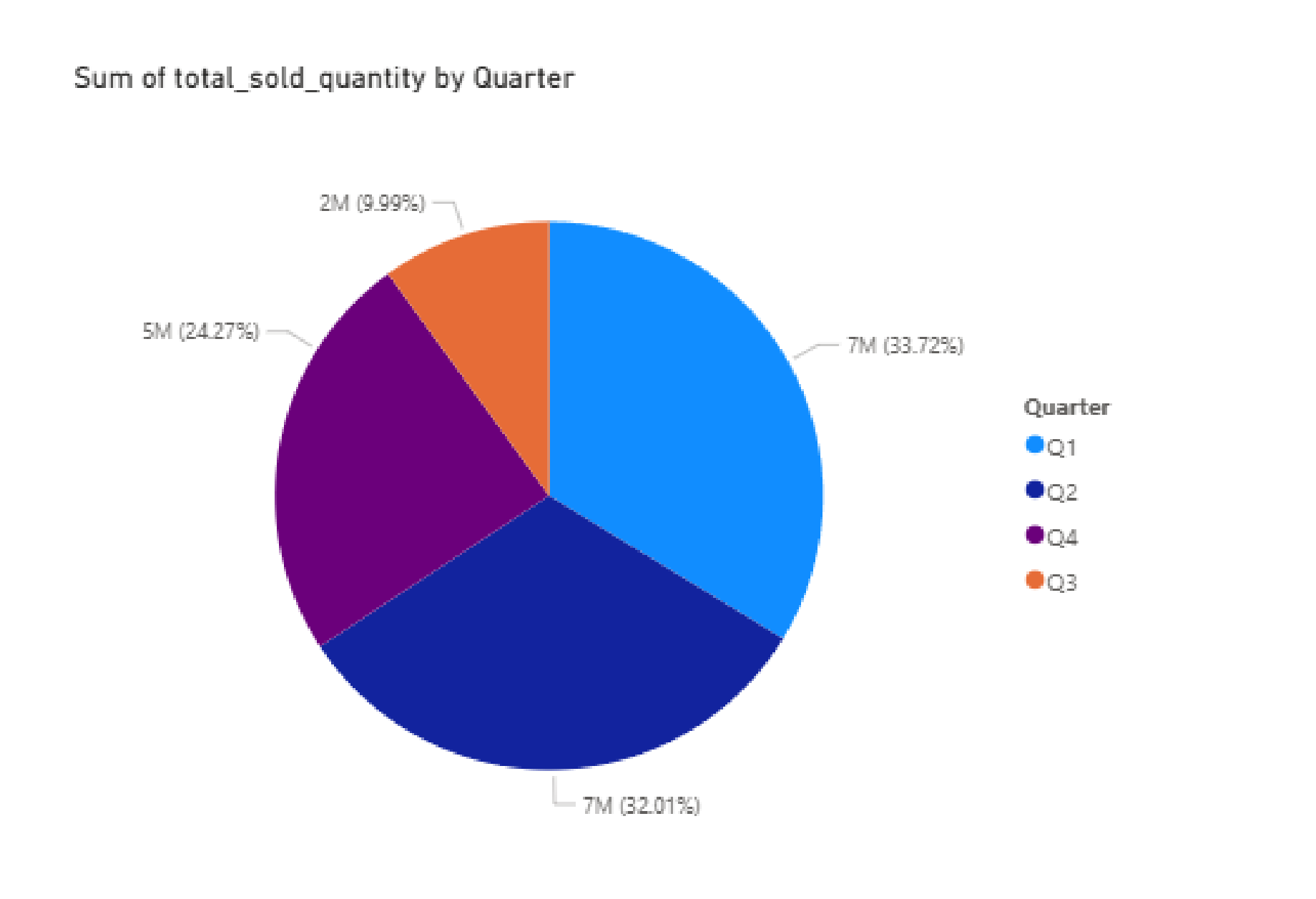


Insights: Tracks monthly performance trends to identify high and low-performing months, assisting in planning promotions, budgeting, and resource allocation.

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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

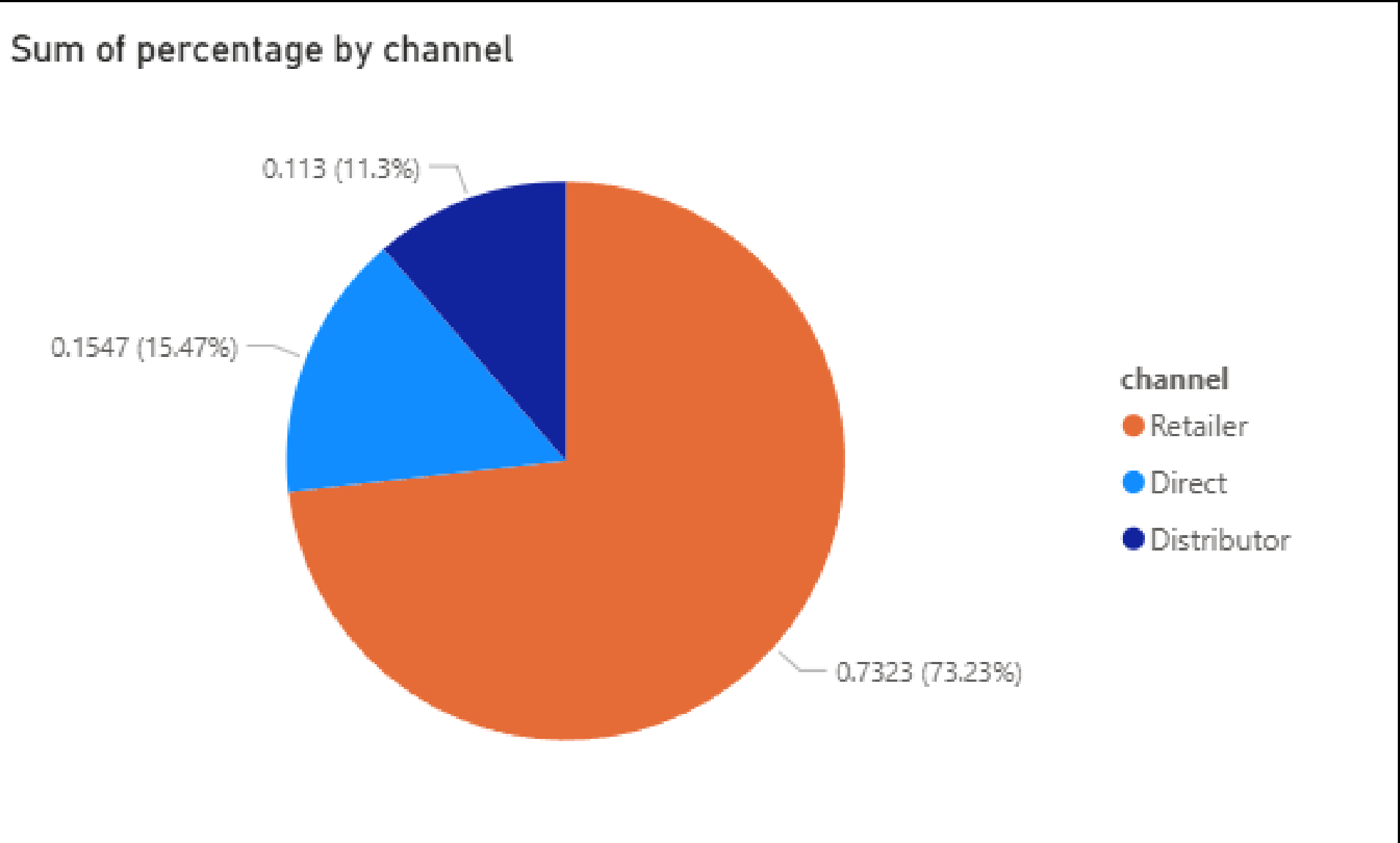


Insights:Reveals sales seasonality by quarter, highlighting peak and low demand periods to optimize inventory and marketing campaigns in future fiscal cycles.

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 %

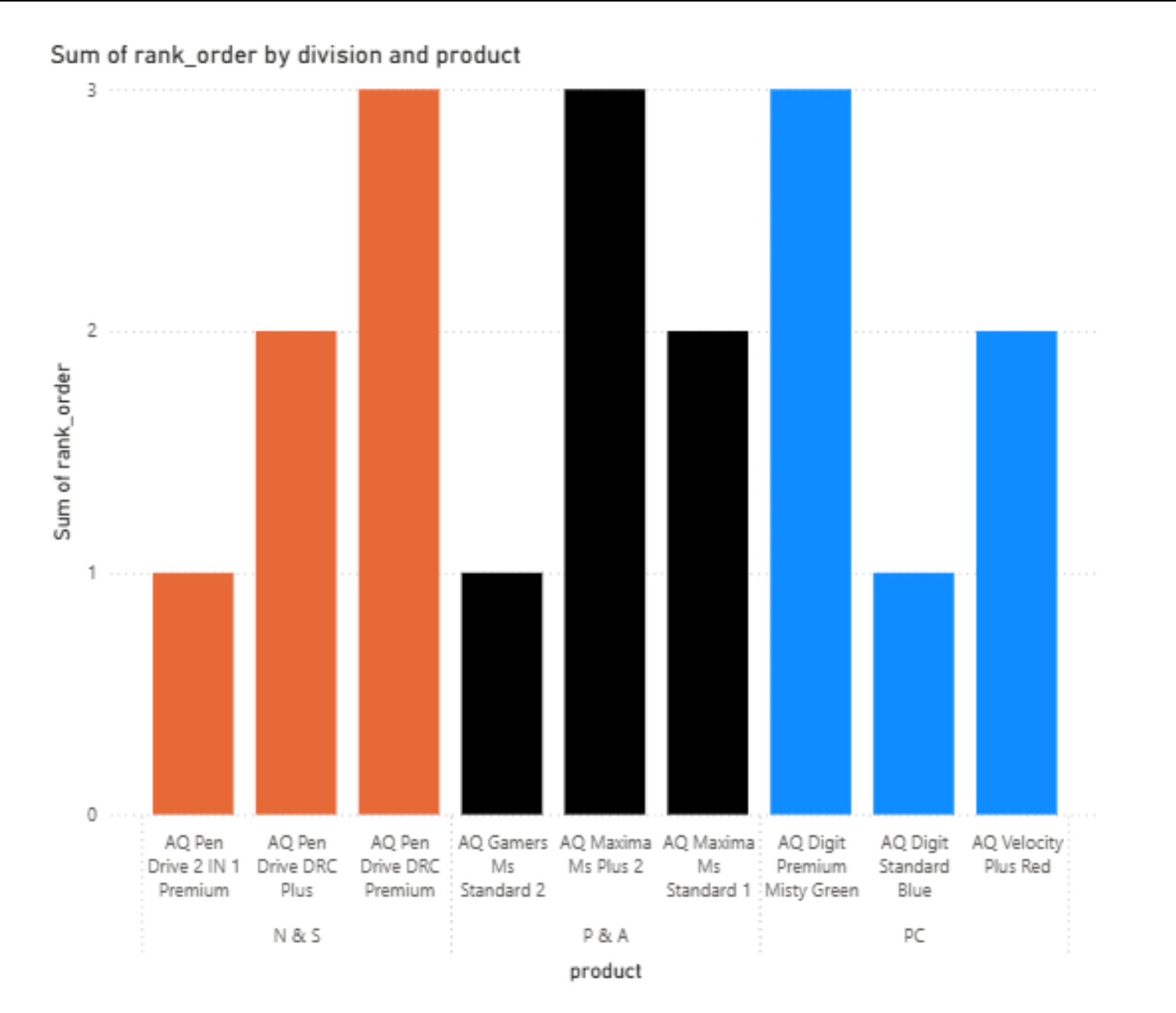


Insights: Shows which sales channel (Retailer, Distributor, or Direct) drives the highest revenue share, helping refine channel strategies and partnership priorities.

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
	N & S	A6818160202	AQ Pen Drive DRC Plus	688003	2
	N & S	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

