



Consumer Goods Ad_Hoc Insights

Business Problem

Domain : Consumer Goods

Function : Executive Management

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

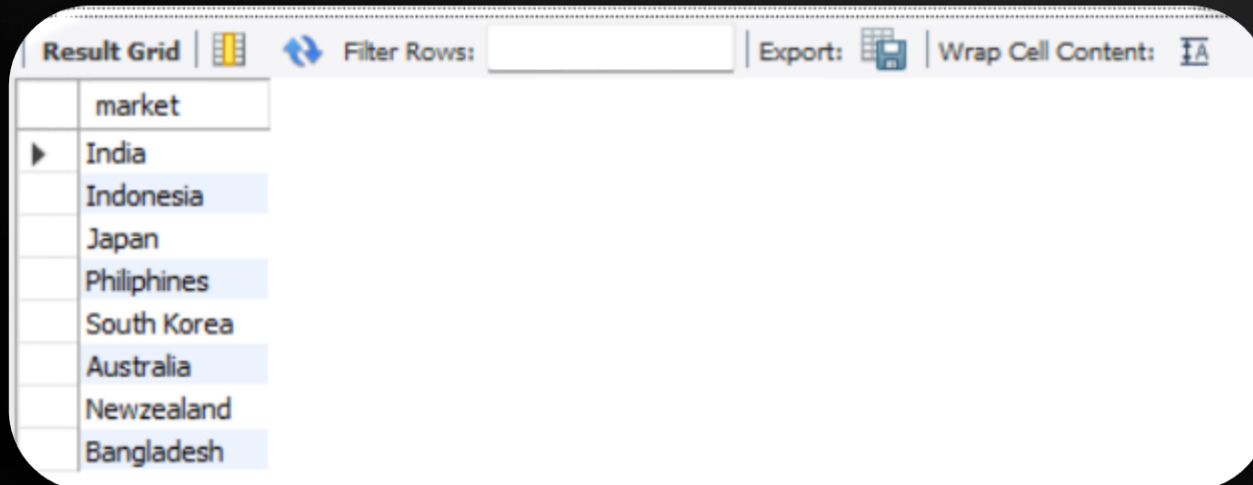
However, the management noticed that they do not get enough insights to make quick and smart data-informed decisions. They want to expand their data analytics team by adding several junior data analysts. Tony Sharma, their data analytics director wanted to hire someone who is good at both tech and soft skills. Hence, he decided to conduct a SQL challenge which will help him understand both the skills.

Markets in 'APAC' region and customer is 'Atliq Exclusive'

Request :- 1

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

Output :-



market
India
Indonesia
Japan
Philippines
South Korea
Australia
Newzealand
Bangladesh

Insights

Out of a total of 27 markets, the customer 'Atliq Exclusive' operates in 8 markets within the 'APAC' region.

Percentage of unique products in 2020 vs 2021

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.

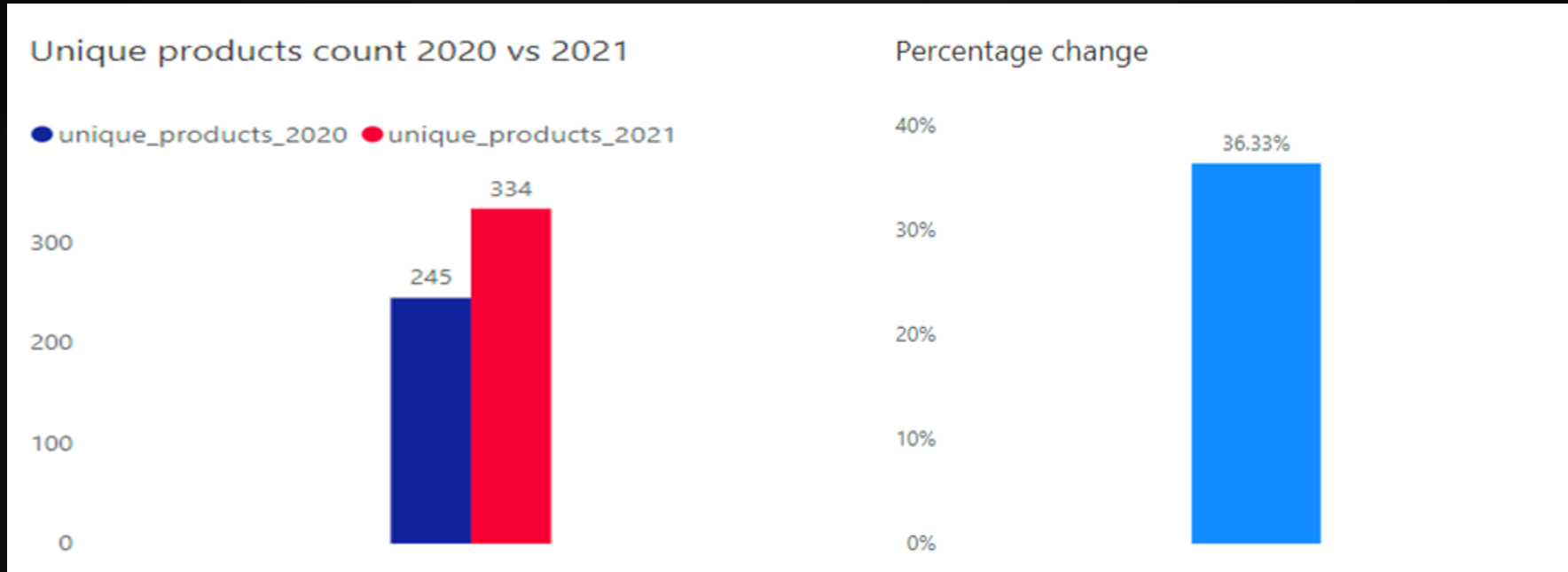
Output :-



The screenshot shows a data table interface with a header row and one data row. The header row contains three columns: 'unique_products_2020', 'unique_products_2021', and 'percentage_chg'. The data row shows values 245, 334, and 36.33% respectively. The interface includes a 'Result Grid' tab, a 'Filter Rows' input field, and 'Export' and 'Wrap Cell Content' buttons.

	unique_products_2020	unique_products_2021	percentage_chg
▶	245	334	36.33%

Visualisation of Output



Insights :-

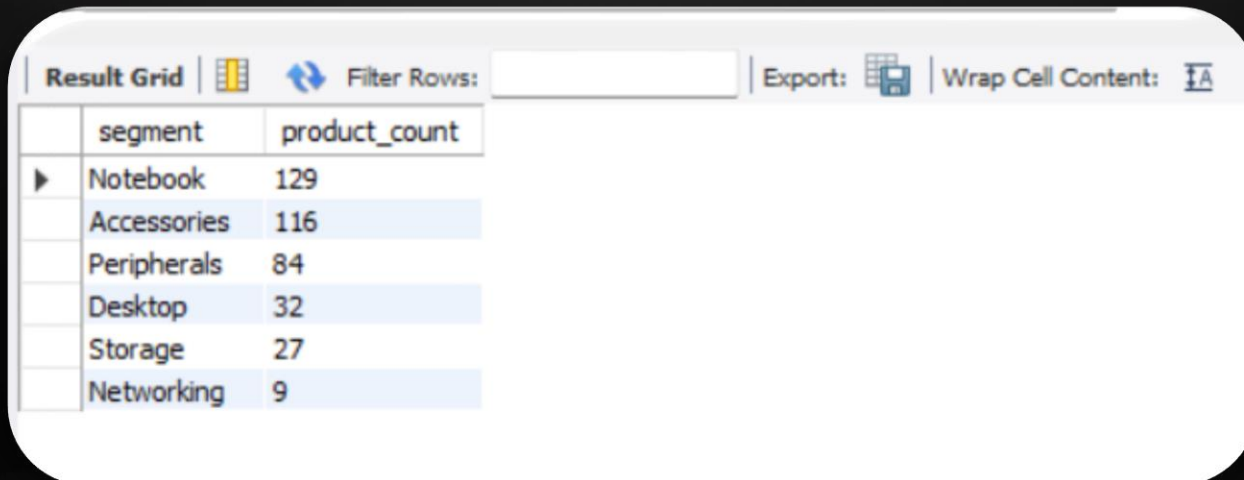
- The number of products rose from 245 to 334 (89 difference) between 2020 and 2021, approximately 36.33%.
- Atliq Hardware increased its business by introducing in-demand products which are contributing to the increase in product count.
- Another reason why consumers are more aware of these products may be improvements in marketing and positive word of mouth.

Unique product counts for each segment

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.

Output :-



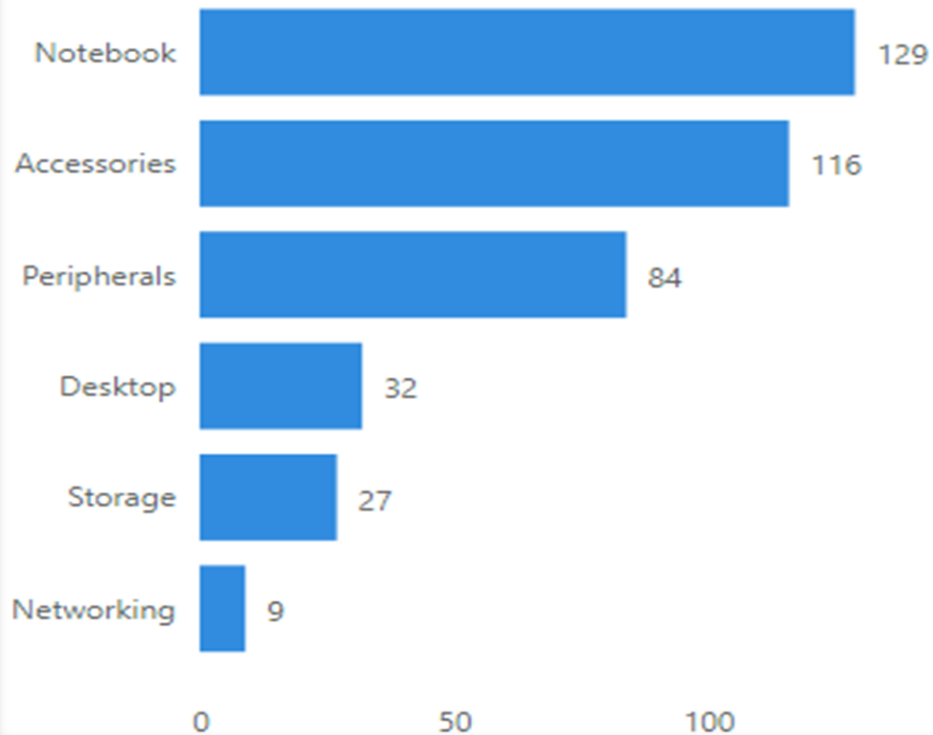
The screenshot shows a software interface with a toolbar at the top containing icons for 'Result Grid', 'Filter Rows', 'Export', and 'Wrap Cell Content'. Below the toolbar is a table with two columns: 'segment' and 'product_count'. The table contains six rows of data, sorted in descending order of product count. The first row is highlighted with a blue background.

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

Visualisation of Output

Insights :-

Total products for each segment.



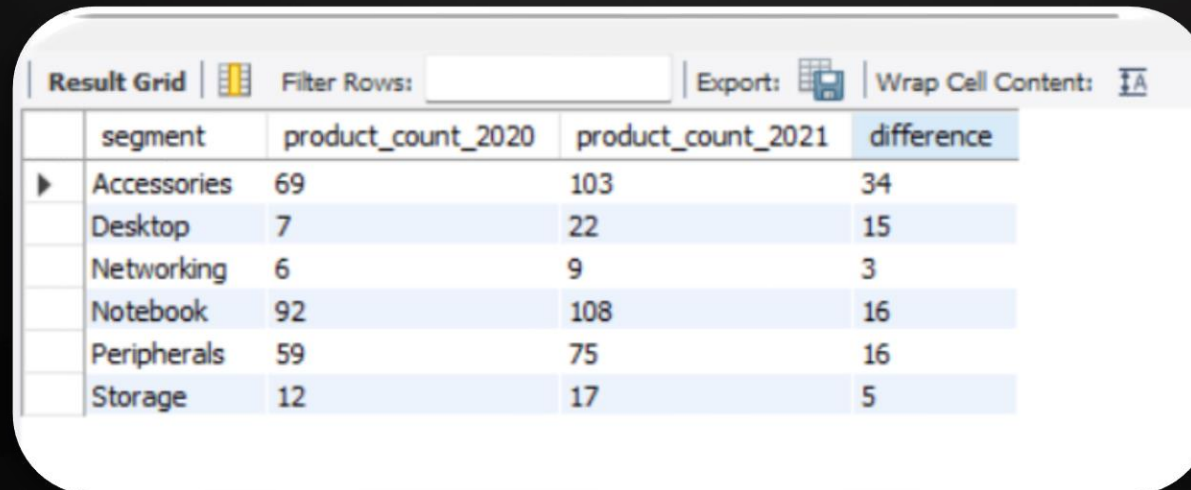
- Customers prefer the segments "notebook," "accessories," and "peripherals," with counts of 129, 116, and 84, respectively.
- This suggests that customers may be interested in products that enhance or supplement their current technology setups.
- The least popular product categories are desktop, storage, and networking. This suggests that customers may be less interested in these types of products, which may warrant further investigation.
- Consider experimenting with different marketing strategies or promotions to see if you can increase sales in less popular segments. For example, you could offer a discount on Desktop or Storage products to entice customers to buy them.

Segment with most increase unique products in 2020 vs 2021

Request :- 4

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

Output :-

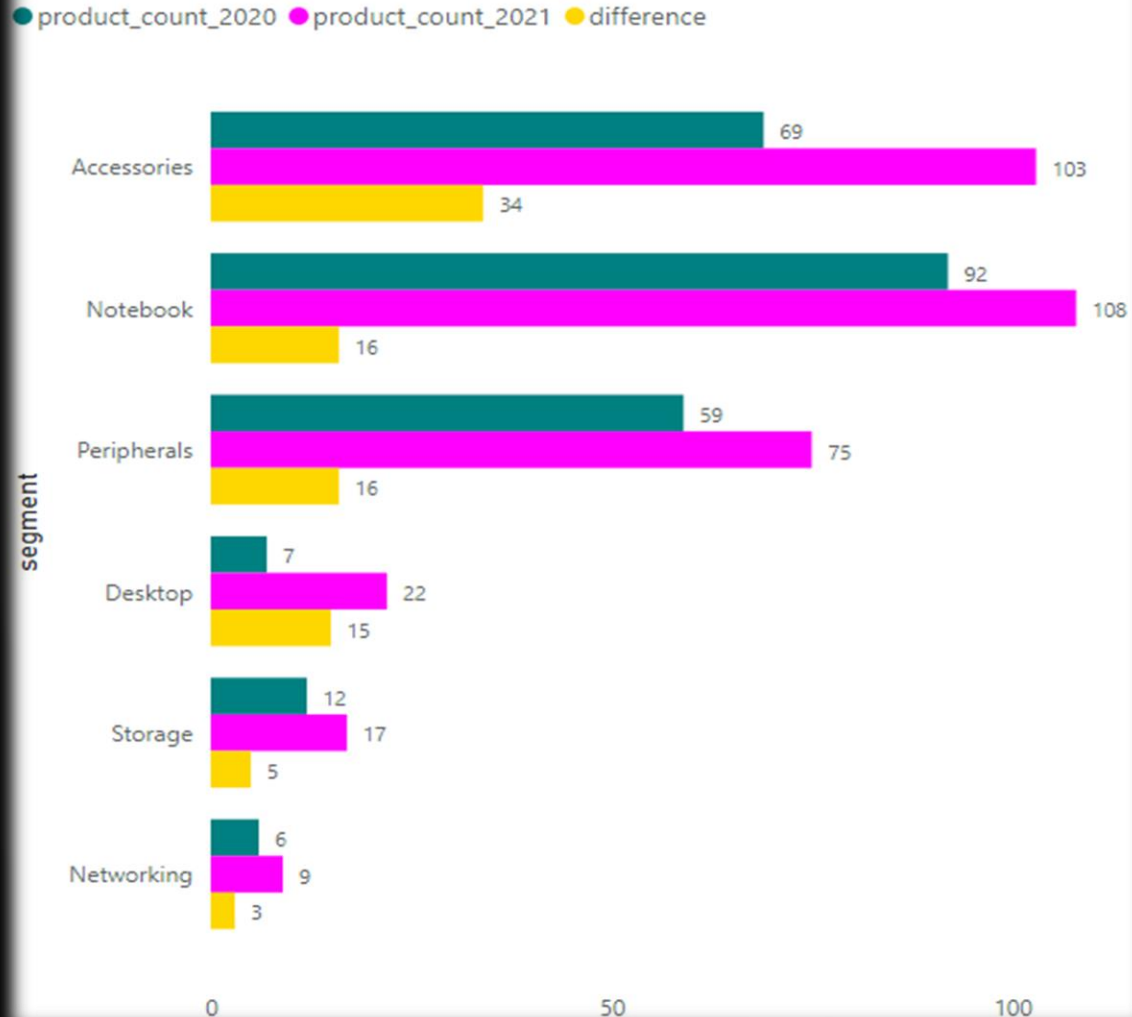


The screenshot shows a data table interface with a toolbar at the top. The toolbar includes a 'Result Grid' button, a 'Filter Rows' input field, an 'Export' button with a download icon, and a 'Wrap Cell Content' button with a text icon. The table below has five columns: 'segment', 'product_count_2020', 'product_count_2021', and 'difference'. The rows represent different product segments: Accessories, Desktop, Networking, Notebook, Peripherals, and Storage. The 'Accessories' segment shows the highest increase in product count from 2020 to 2021.

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

Visualisation of Output

Unique Products Count in 2020 Vs 2021



Insights :-

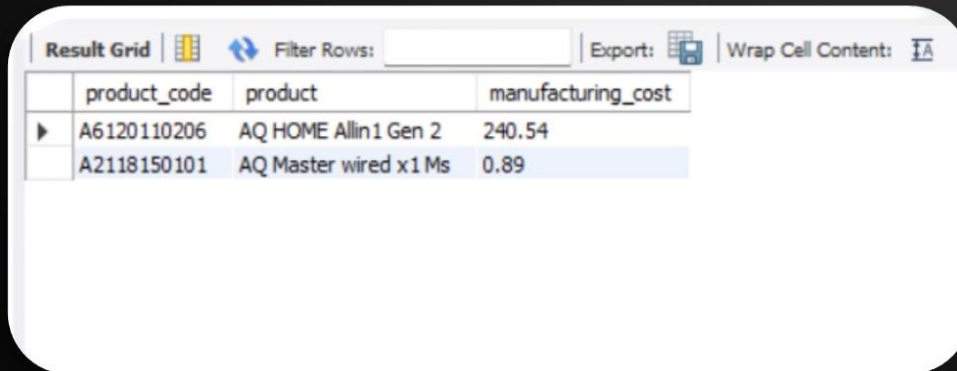
- Results indicate the Accessories segment in the 'P & A' division has experienced growth with an increase of 34 unique products, which shows an increase in demand for Accessories.
- Notebook and desktop computers from the 'PC' division, as well as peripherals from the 'P & A' division, increased the company's product line by around 16 products.
- While the 'N & S' division's Storage and Networking segments grew the least in terms of unique products, with 5 and 3 respectively.

Segment with most increase unique products in 2020 vs 2021

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.

Output :-



The screenshot shows a 'Result Grid' interface with a table containing three columns: product_code, product, and manufacturing_cost. There are two rows of data. The first row has product_code 'A6120110206' and product 'AQ HOME Allin1 Gen 2' with a manufacturing_cost of 240.54. The second row has product_code 'A2118150101' and product 'AQ Master wired x1 Ms' with a manufacturing_cost of 0.89. The interface includes a 'Filter Rows' field, an 'Export' button, and a 'Wrap Cell Content' checkbox.

product_code	product	manufacturing_cost
A6120110206	AQ HOME Allin1 Gen 2	240.54
A2118150101	AQ Master wired x1 Ms	0.89

Maximum Manufacturing Cost
240.54

Minimum Manufacturing Cost
0.89

Insights :-

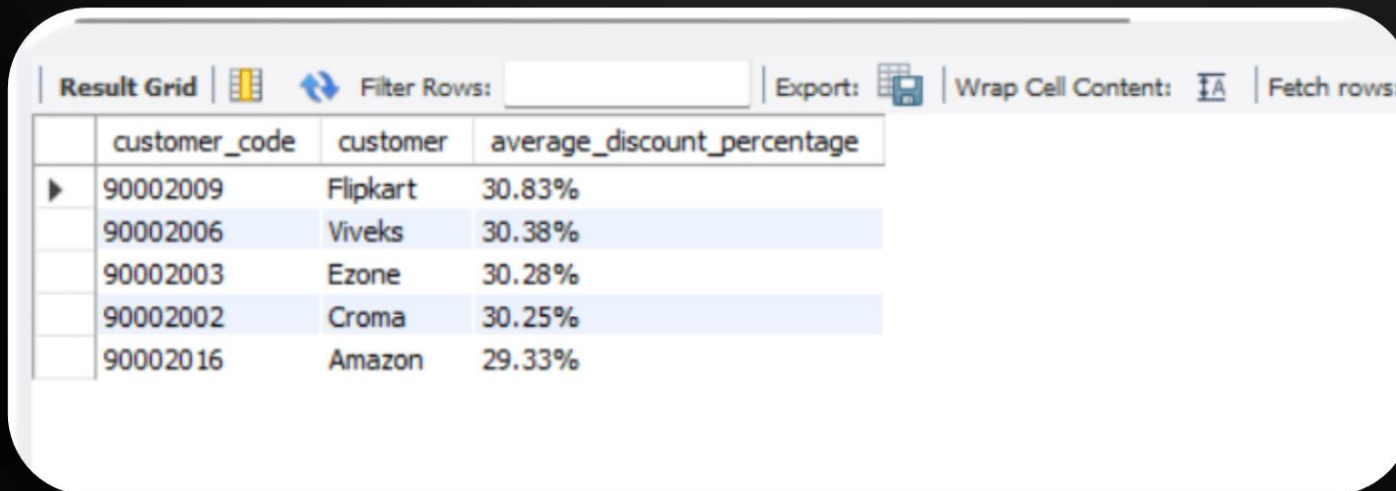
- The results show that AQ Master wired x1 Ms products have the lowest manufacturing cost, which is positive.
- There is, however, a high manufacturing cost associated with the product AQ Home Alin 1 Gen, which may be due to the price of raw materials or labor costs.

Top 5 Customers with average highest pre-invoice-discount-pct

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

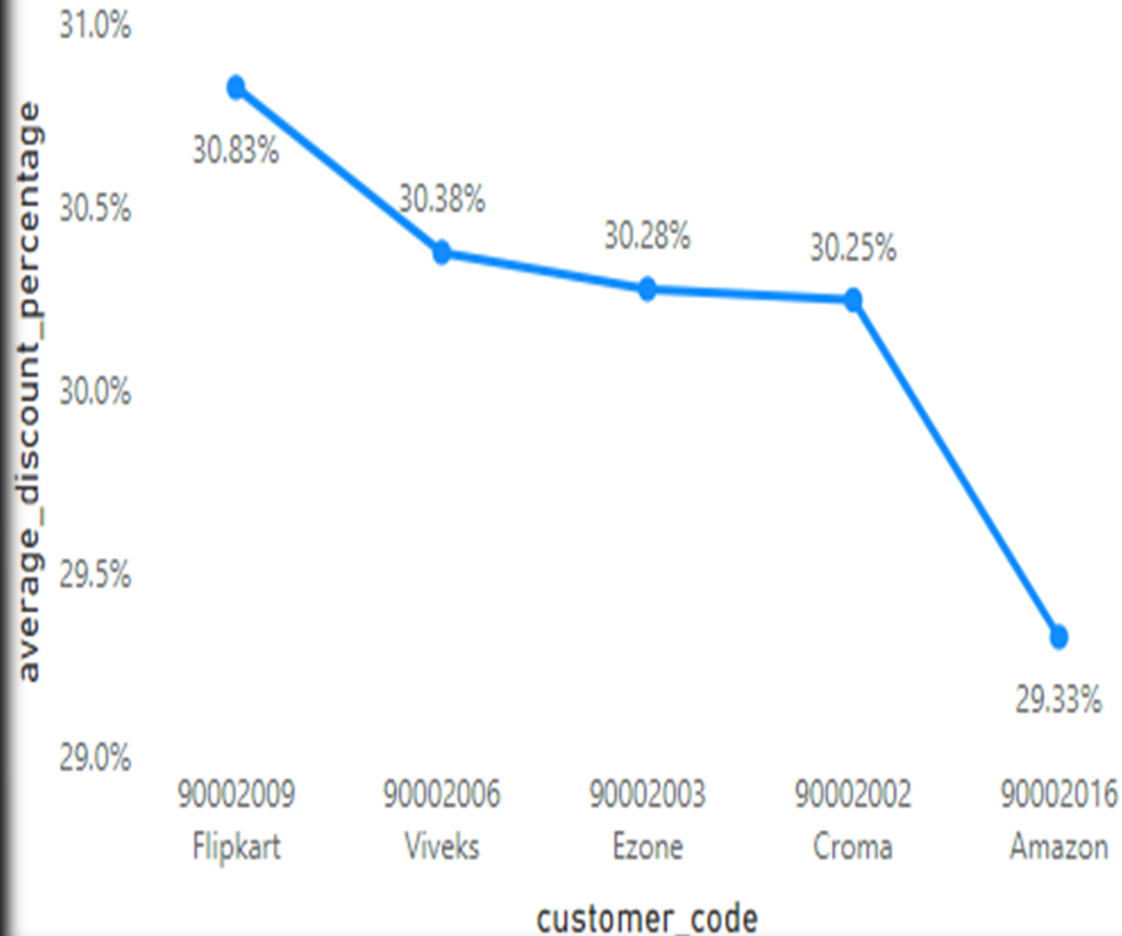
Output :-



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

Visualisation of Output

avg_discount_percentage per each customer,customer_code



Insights :-

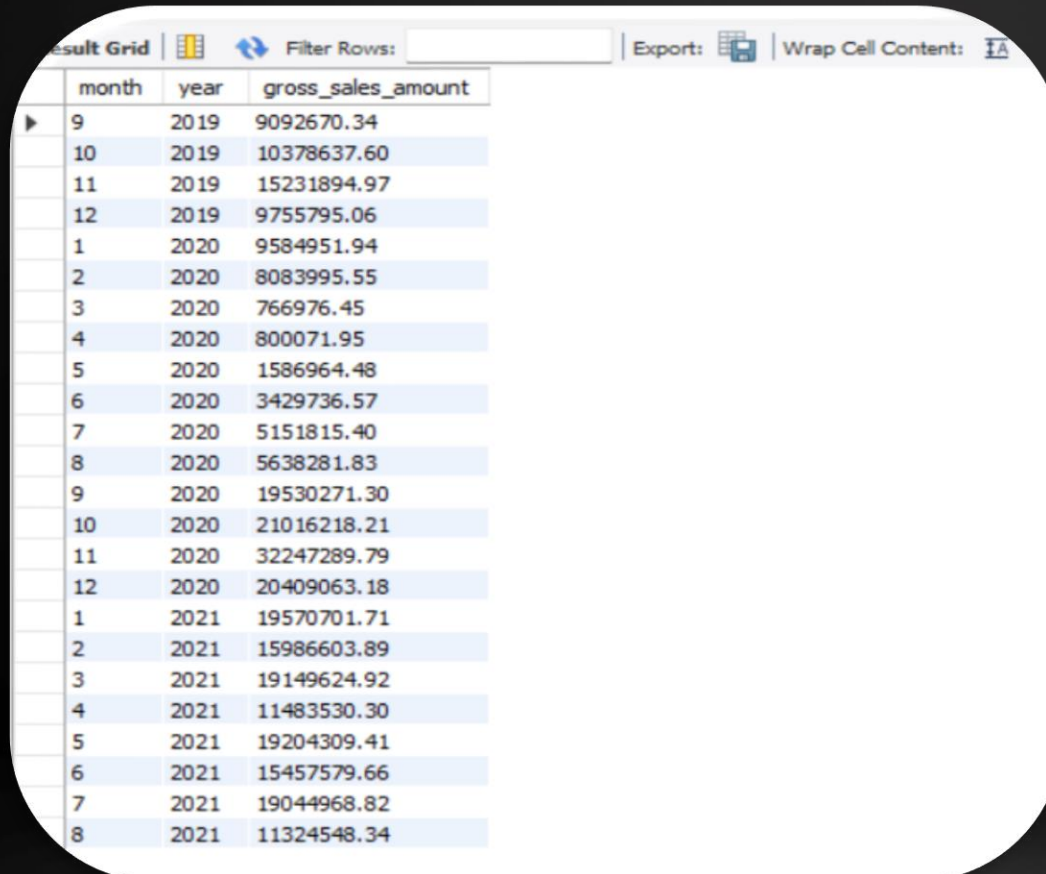
- The graph clearly shows which customers Viveks, Ezone, Croma, and Amazon are the most valuable to Atliq Hardware.
- Flipkart and Viveks have nearly identical average discount percentages of 30.83% and 30.38%, respectively.
- The difference between Ezone and Croma is only 0.03%.
- Amazon's average discount percentage of 29.33% is the lowest of the five customers.

Gross sales amount for “Atliq Exclusive” customer

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.

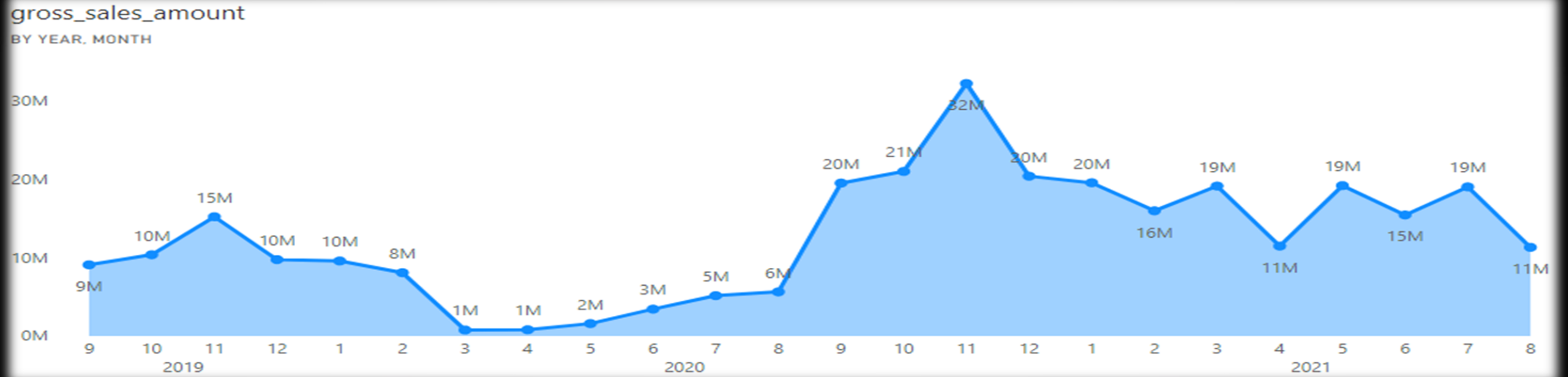
Output :-



The screenshot displays a data grid with a toolbar at the top. The toolbar includes a 'Result Grid' icon, a 'Filter Rows' input field, an 'Export' button, and a 'Wrap Cell Content' button. The data is presented in a table with three columns: 'month', 'year', and 'gross_sales_amount'. The rows are numbered 9 through 12 for the year 2019, and 1 through 8 for the years 2020 and 2021. The gross sales amount is displayed in a formatted currency style.

month	year	gross_sales_amount
9	2019	9092670.34
10	2019	10378637.60
11	2019	15231894.97
12	2019	9755795.06
1	2020	9584951.94
2	2020	8083995.55
3	2020	766976.45
4	2020	800071.95
5	2020	1586964.48
6	2020	3429736.57
7	2020	5151815.40
8	2020	5638281.83
9	2020	19530271.30
10	2020	21016218.21
11	2020	32247289.79
12	2020	20409063.18
1	2021	19570701.71
2	2021	15986603.89
3	2021	19149624.92
4	2021	11483530.30
5	2021	19204309.41
6	2021	15457579.66
7	2021	19044968.82
8	2021	11324548.34

Visualisation of Output



Insights :-

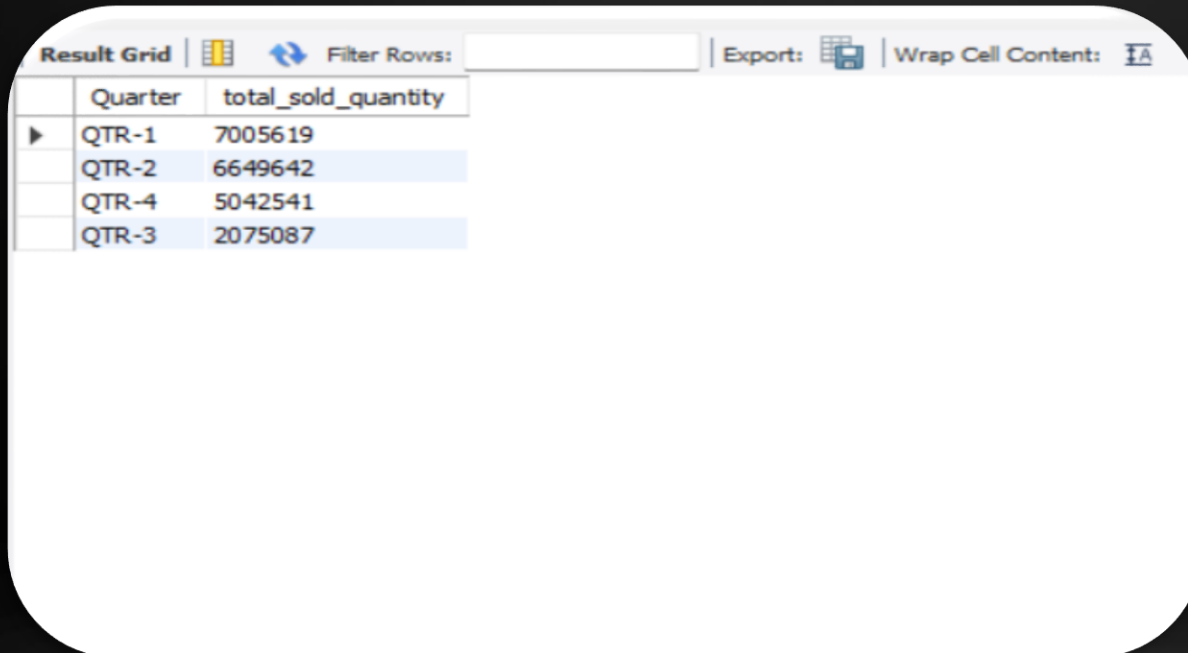
- The above results in gross sales amount indicate there was a decrease in gross sales in the month of March in fiscal year 2019. It is possible that this is due to the inclusion of the COVID epidemic. Due to this sales were down for 6 months.
- After that gross sales rose sharply in September, reaching 20 million dollars for fiscal year 2020.
- A great deal of gross sales were achieved in the months of October, November, and December in all the years.

Quarterly report of highest sold quantity

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.

Output :-

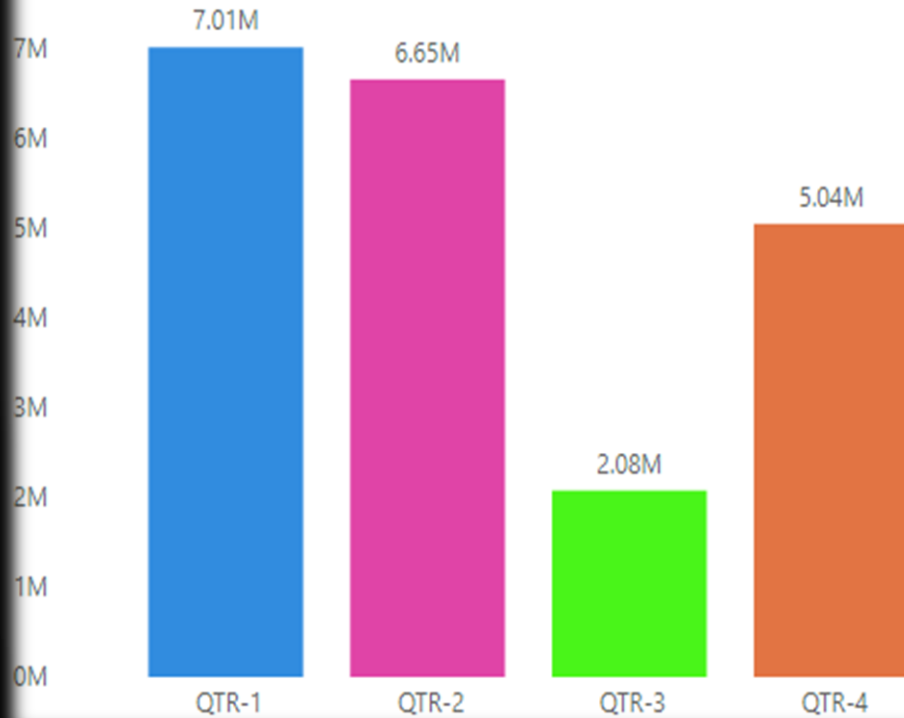


Quarter	total_sold_quantity
QTR-1	7005619
QTR-2	6649642
QTR-4	5042541
QTR-3	2075087

Visualisation of Output

Insights :-

total_sold_quantity by quarter in the year 2020



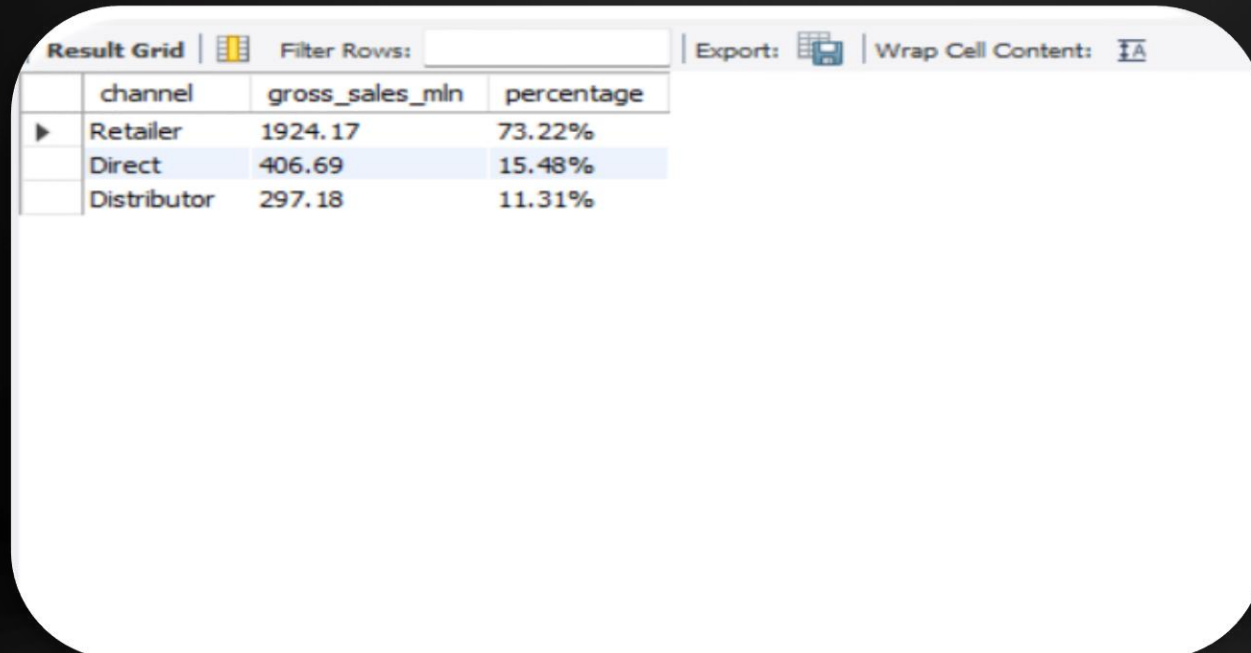
- In fiscal year 2020, Quarter 1 had the highest sold quantity with 7.01 million, which is possibly due to the financial year of the company's starting months.
- Quarter 2 and Quarter 4 have a sold quantity of 6.65 million and 5.04 million, respectively.
- Quarter 3 had the lowest sold quantity, which has to be addressed by the sales and marketing teams.

Channel with highest gross sales in fiscal year 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.

Output :-



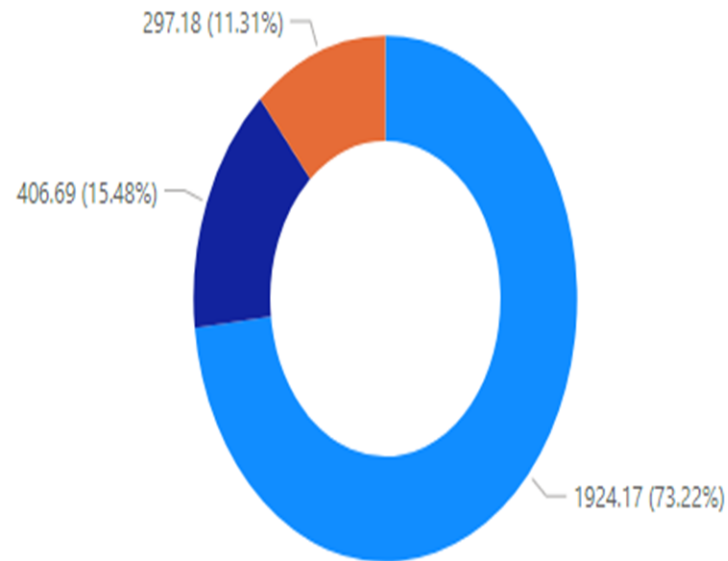
channel	gross_sales_mln	percentage
Retailer	1924.17	73.22%
Direct	406.69	15.48%
Distributor	297.18	11.31%

Visualisation of Output

Insights :-

gross_sales per each channel

● Retailer ● Direct ● Distributor



- Atliq Hardware operates its sales through three channels: retailers, direct sellers, and distributors.
- Retailer gross sales are the highest of the three channels at 1924.17, or 73.22%. It shows that customers like Amazon, Expert, etc. are selling more products.
- Direct channel sales are about \$406.69, which is 15.48%. These are the company's own channels, with customers like Atliq eStore and Atliq Exclusive.
- The distributor channel had the least gross sales with 297.18, which is 11.31%, which is understandable because companies rarely use distributors in most countries except some like China, etc.

Top 3 products in each division with maximum sold quantity in f_y 2021

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 .

Output :-

Result Grid

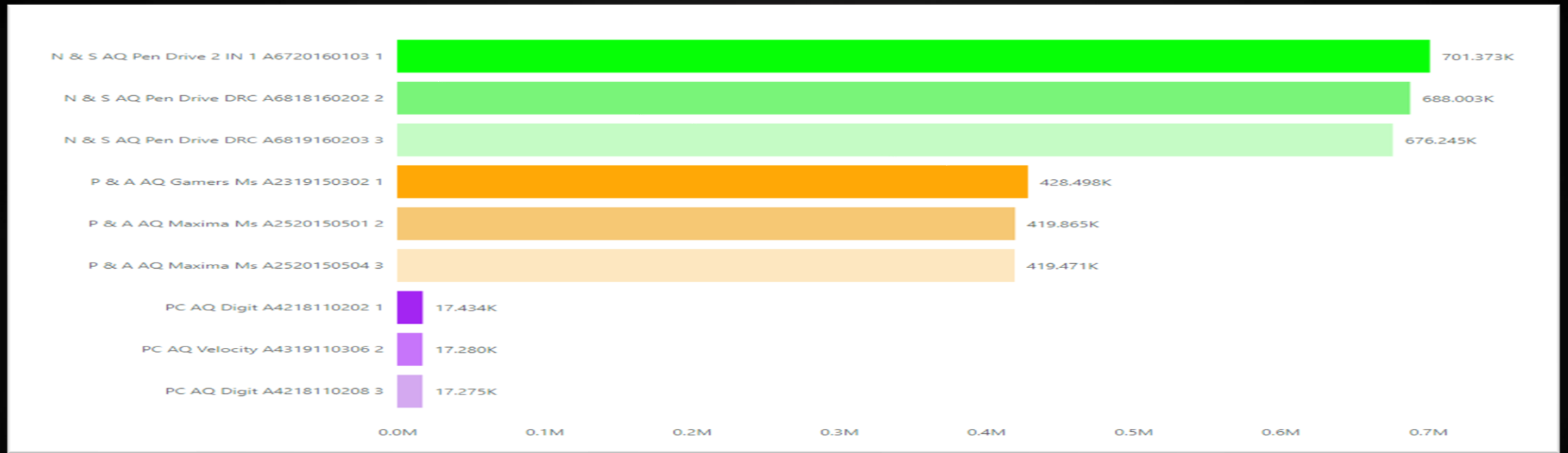
Filter Rows:

Export:

Wrap Cell Content:

	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

Visualisation of Output



Insights :-

- In 2021, the top sold quantities in 'N & S' division were related to pen drive products namely AQ Pen Drive 2 IN 1, AQ Pen Drive DRC.
- Similarly, for the 'P & A' division, both AQ Gamers Ms and AQ Maxima Ms are top selling products.
- In the 'PC' division top 3 sold quantities are AQ Digit and AQ Velocity.