

ATLIQ HARDWARE

AD_HOC INSIGHTS CONSUMER GOODS

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AGENDA



Introduction

Insights

Appendix

INTRODUCTION

Our Company

Atiq Hardware (imaginary company) - One of the leading computer hardware producers in India.

Background

The management noticed that they do not get enough insights to make quick and smart data-informed decisions.

Problem

There are 10 ad-hoc requests for which the company needs insights.

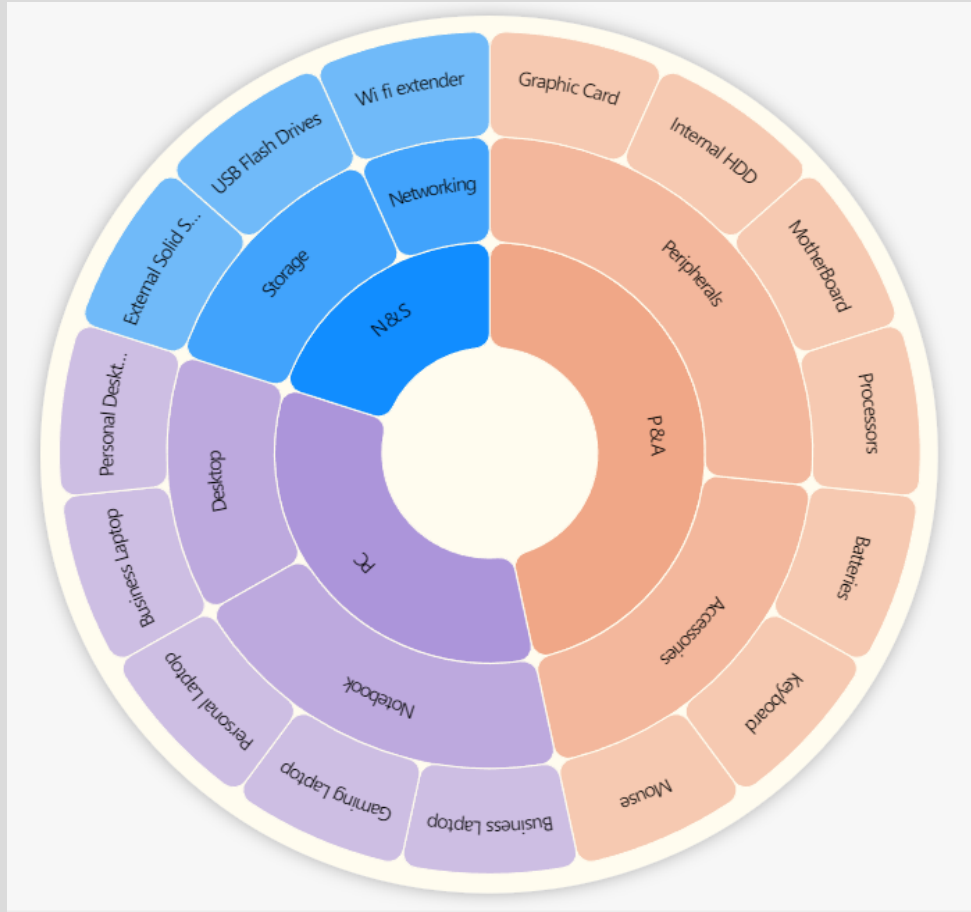
Approach

Run a SQL query to answer these requests. Convert it into visualizations and present the Insights to the top level management



Company details

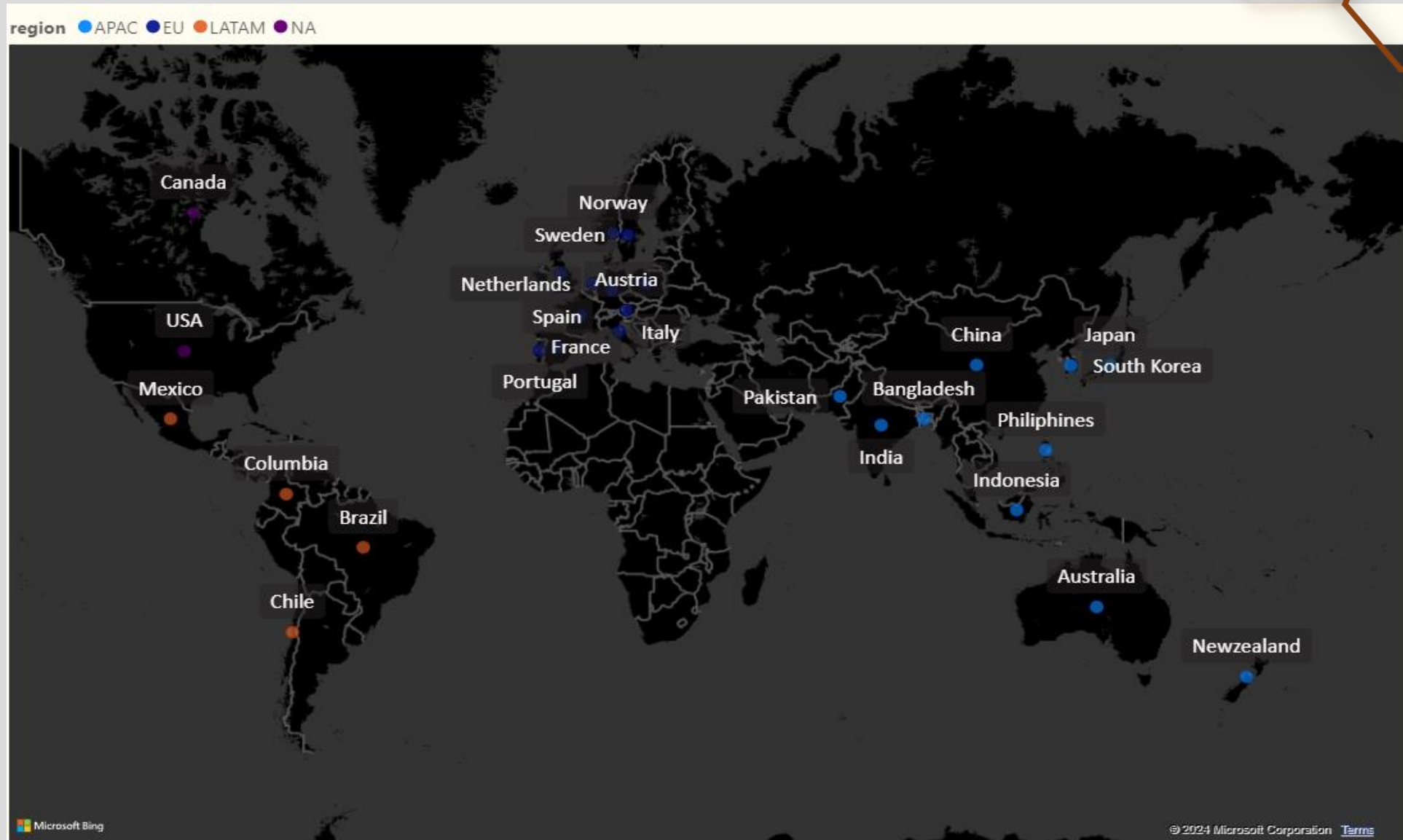
Atliq Hardware is a computer hardware and accessory manufacturer.



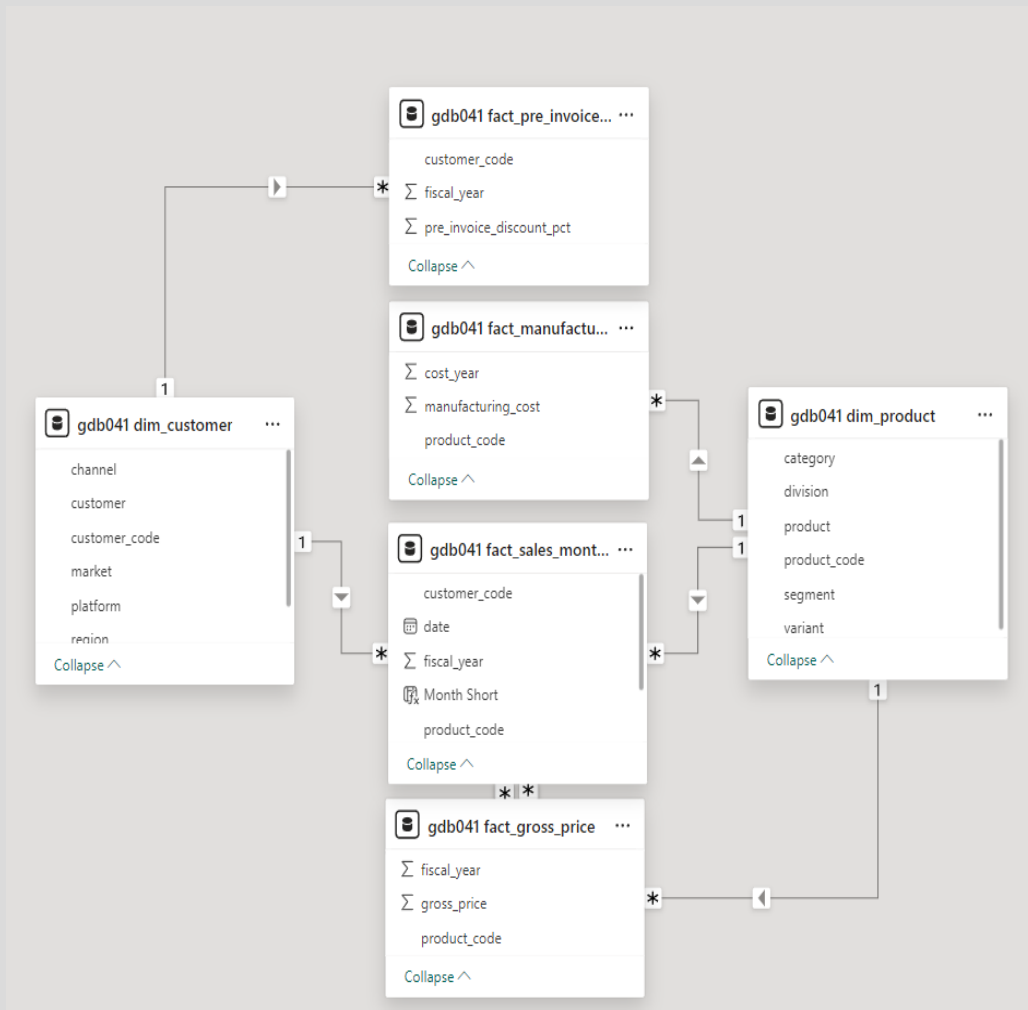
Fiscal Year
September 2019 – August 2020
FY 2020
September 2020 – August 2021
FY 2021

Inner Circle : Division
Mid Circle : Segment
Outer Circle : Category

Company's Market



DATA, REQUESTS AND TOOLS



Codebasics SQL Challenge

Requests:

1. Provide the list of markets in which customer "Atliq Exclusive" operates its business in the APAC region.
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
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
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
5. Get the products that have the highest and lowest manufacturing costs. The final output should contain these fields,
product_code
product
manufacturing_cost
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
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
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
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_min
percentage
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



INSIGHTS

1. PROVIDE THE LIST OF MARKETS IN WHICH CUSTOMER "ATLIQ EXCLUSIVE" OPERATES ITS BUSINESS IN THE APAC REGION.

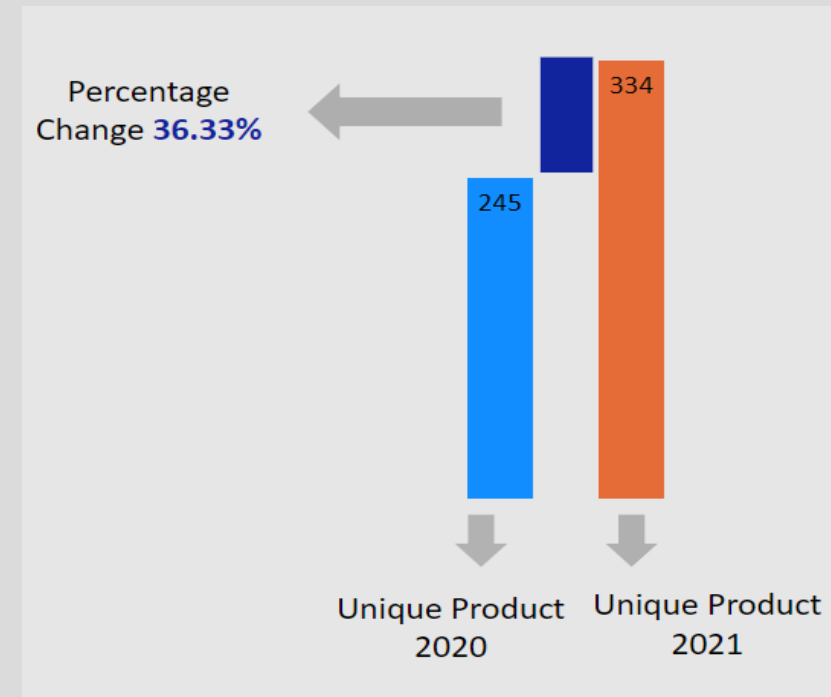
	market
▶	India
	Indonesia
	Japan
	Philippines
	South Korea
	Australia
	Newzealand
	Bangladesh



INSIGHTS

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_change
►	245	334	36.33

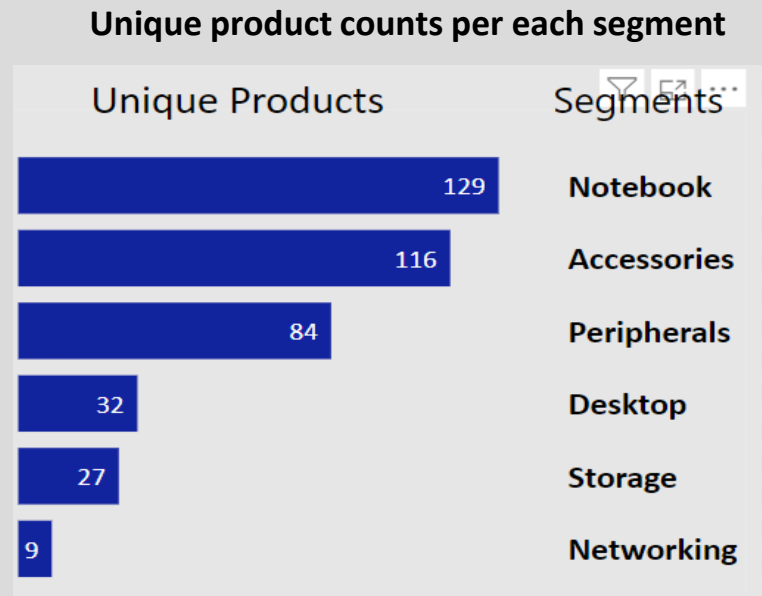


It's a good sign that we are continuously innovating and introducing new products to the market. In **FY 2020**, we had a total of **245 products**, but in **FY 2021**, our count **increased by 36% to 334** products.

INSIGHTS

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



SUGGESTIONS

- Package Deals
- Customer Services
- Free Vouchers
- Student Discounts
- Cash Backs
- Gift Cards

- Segment: Notebook, Accessories, Peripherals are showing significant manufacturing growth as compared to Desktop, Storage, Networking.
- Notebook, Accessories, Peripherals constitute 83% of total manufactured product

INSIGHTS

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

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

Unique Product difference per segment
From 2020 to 2021

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 ↑

- Accessories had the Largest increase in the Production
- Storage and Networking experiencing slower growth than other segments

INSIGHTS

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

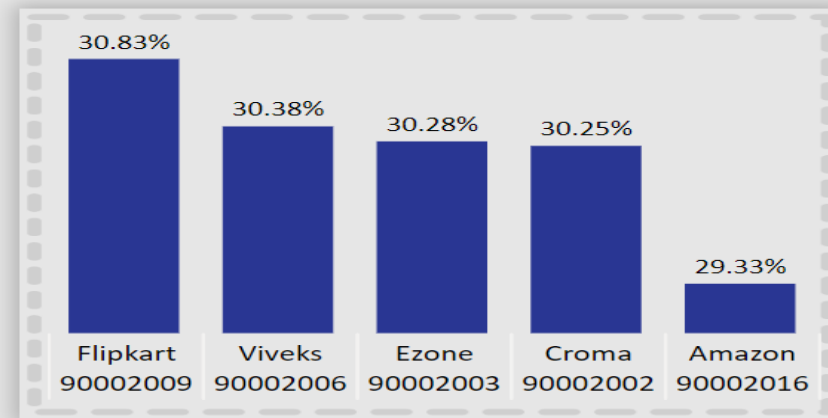
- Mouse: AQ Master wired x1 Ms (Variant : Standard 1) has the lowest manufacturing cost
- Personal Desktop: AQ HOME Allin 1 Gen 2 (Variant : Plus 3) has the highest manufacturing cost

INSIGHTS

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	30.83%
90002006	Viveks	30.38%
90002003	Ezone	30.28%
90002002	Croma	30.25%
90002016	Amazon	29.33%

Top 5 Indian customers with highest average discount percentage for **FY 2021**



Customer & Customer code

INSIGHTS :

- The Highest average pre_invoice discount was given to **Flipkart**
- The Lowest average pre_invoice discount was given to **Amazon**

INSIGHTS

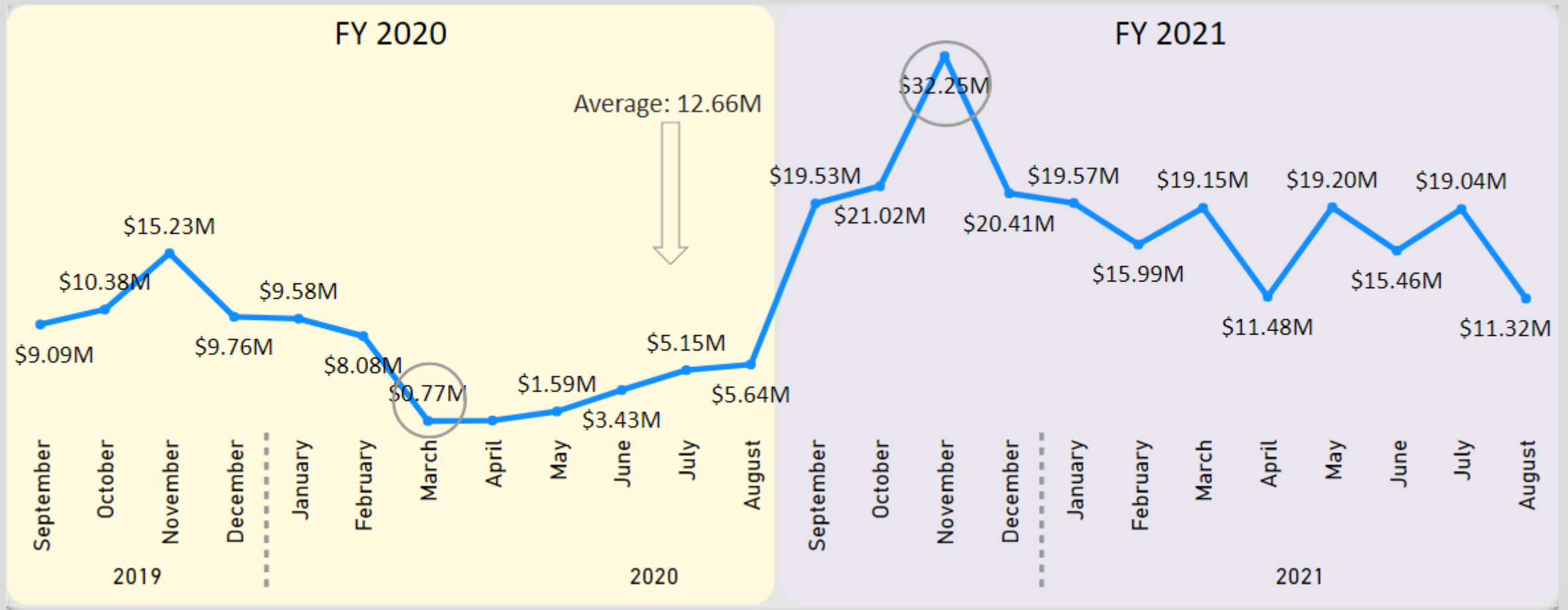
7. Get the complete report of the Gross sales amount for the customer “Atliq Exclusive” for each month . This analysis helps to get an idea of low and high-performing months and take strategic decisions. The final report contains these columns: Month, Year, Gross sales Amount

Month	fiscal_year	Gross_sales_Amount
September (2019)	2020	9092670.34
October (2019)	2020	10378637.60
November (2019)	2020	15231894.97
December (2019)	2020	9755795.06
January (2020)	2020	9584951.94
February (2020)	2020	8083995.55
March (2020)	2020	766976.45
April (2020)	2020	800071.95
May (2020)	2020	1586964.48
June (2020)	2020	3429736.57
July (2020)	2020	5151815.40
August (2020)	2020	5638281.83
September (2020)	2021	19530271.30
October (2020)	2021	21016218.21
November (2020)	2021	32247289.79
December (2020)	2021	20409063.18
January (2021)	2021	19570701.71
February (2021)	2021	15986603.89
March (2021)	2021	19149624.92
April (2021)	2021	11483530.30
May (2021)	2021	19204309.41
June (2021)	2021	15457579.66
July (2021)	2021	19044968.82
August (2021)	2021	11324548.34

Fiscal Year 2020
79.5 M

- The Lowest Gross sales for both fiscal year is in march 2020
- The Highest Gross sales for both fiscal year is in november 2020

Fiscal Year 2021
224.4 M

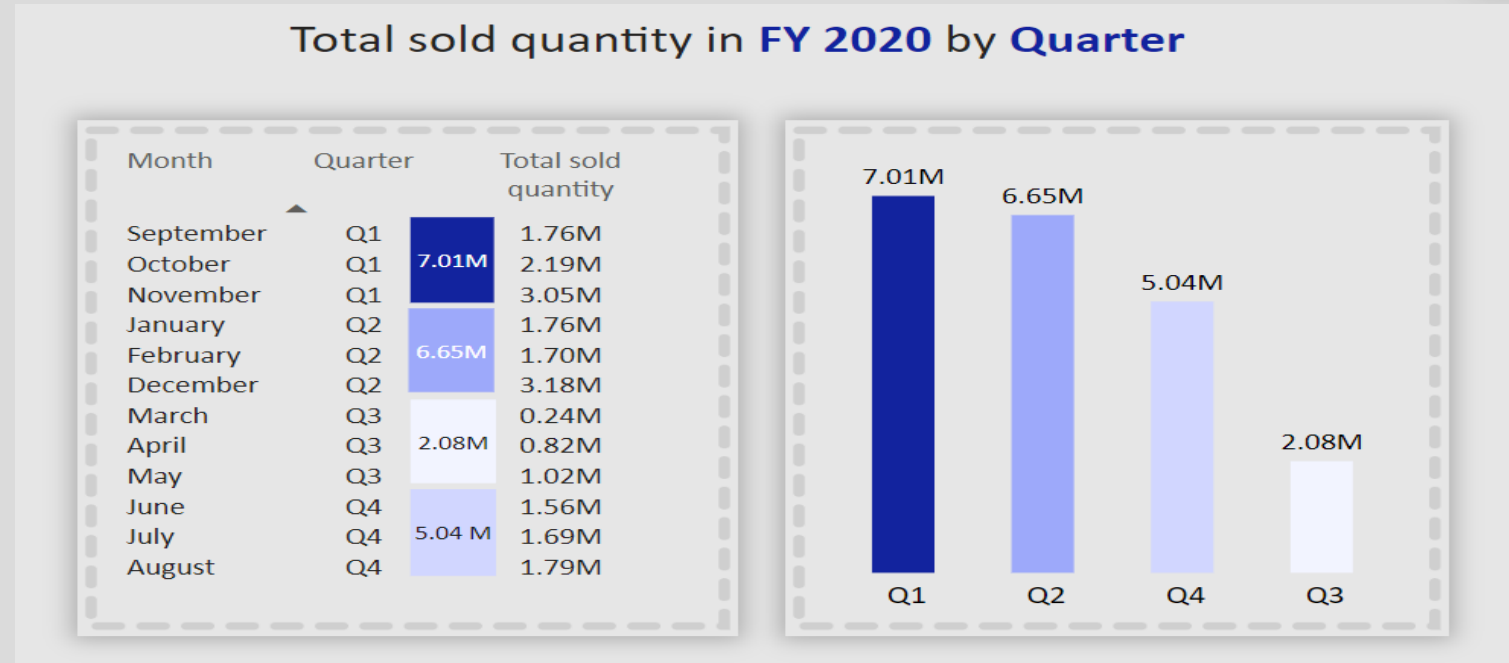


It's very evident that the lower sales between March and August are because of COVID-19 and Global chip shortage. However, it's a very good sign that the sales increased quickly after August and reached the highest level since the last two years in November

INSIGHTS

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

Quarters	total_sold_quantity
1	7005619
2	6649642
4	5042541
3	2075087



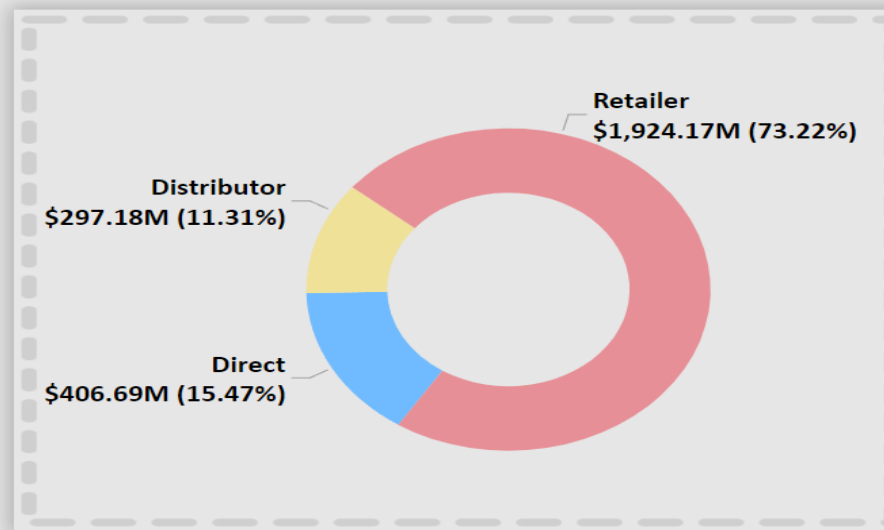
- Quarter 1 of FY 2020 saw the most units sold overall, while Quarter 3 had the fewest
- Highest and lowest over all sold quantity is in December and March
- Quarter 1 accounts for approximately 34% of total sold quantity for FY2020

INSIGHTS

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_in_millions	percentage
Retailer	1924.17	73.22
Direct	406.69	15.47
Distributor	297.18	11.31

Gross sales and contribution percentages by
Channels for **FY 2021**



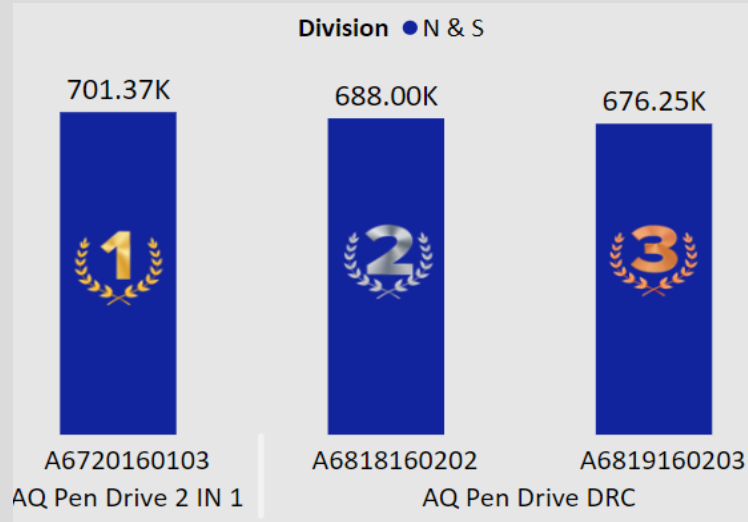
Note : The majority of our sales took place via **retailers**, which is **73.22%** of the total sales. Only a very small percentage of our sales happened through direct and distributor channels

INSIGHTS

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	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

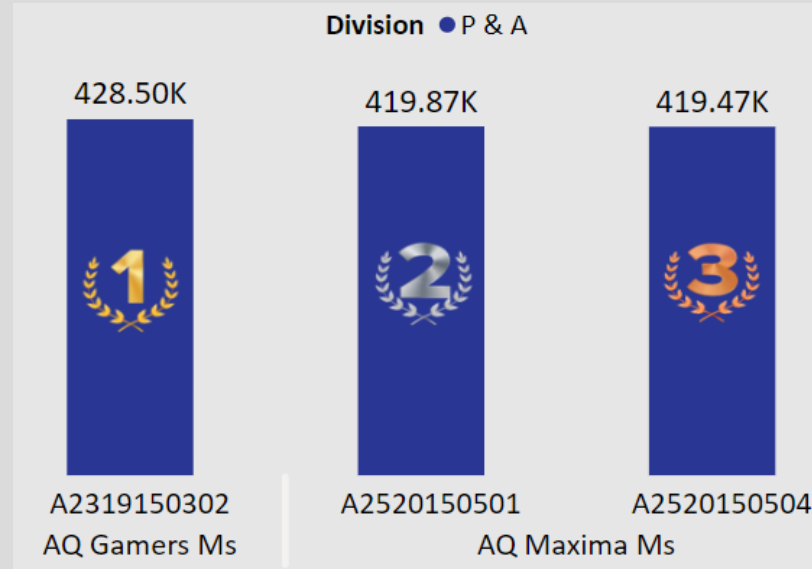
NOTE : Every division has a product with different variant that appear twice in the top 3 products by division list



Premium

Plus

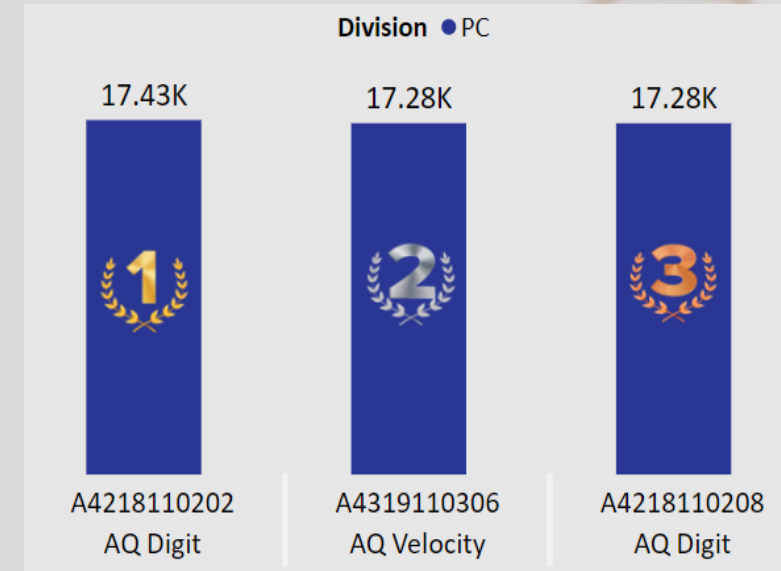
Premium



Standard 2

Standard 1

Plus 2



Standard
blue

Plus red

Premium
Mysty
green

- The top 3 selling products in **N&S** were **pen drives**
- The top 3 selling products in **P&A** were **mouse**
- The top 3 selling products in **PC** were **personal laptops**

APPENDIX

Project on GitHub:

<https://github.com/YASHWANTH-GUNTAKAL/SQL-project-consumer-goods>

Codebasics challenge #4:

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



THANK YOU

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