

Consumer Goods Ad_Hoc Insights

Codebaics Resume challenge – 4 Atliq Hardware's

Domain: Consumer Goods | **Function:** Executive Management

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About Company

Atliq Hardwares is one of the leading computer hardware producers in India, known for its innovative technology and high-quality products. With a strong presence in the Indian market, the company has expanded its reach to several other countries, solidifying its position as a global player in the hardware industry. Atliq Hardwares specializes in a wide range of products.

The company's commitment to excellence, customer satisfaction, and cutting-edge technology has driven its growth and success in international markets, making it a trusted name worldwide.

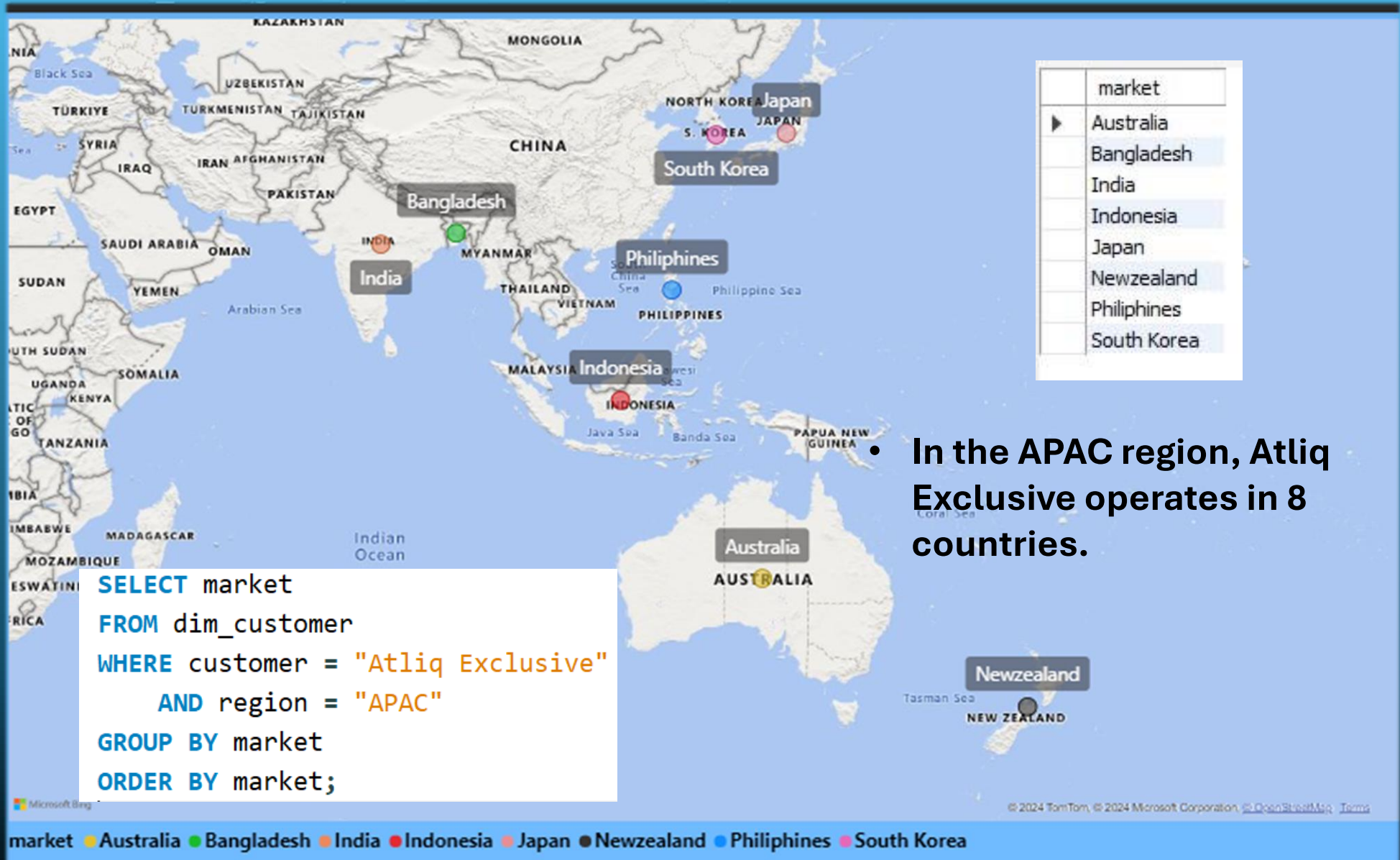


Tasks:

- Review the 10 ad-hoc requests for business insights.
- SQL queries to address the requests.
- Provide suggestions based on the query results.



Markets in APAC Where Atliq Exclusive Operates



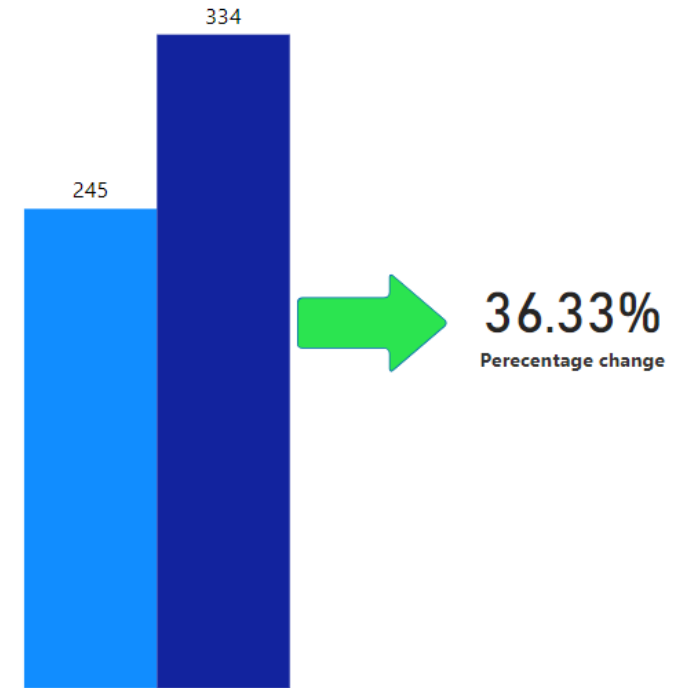
APAC is Asia-Pacific

Percentage Increase in Unique Products: 2021 vs. 2020

```
SELECT
    AA.A as Unique_products_2020,
    BB.B as Unique_product_2021,
    round((B-A)*100/A,2) as percentage_chg
from
(
    (select count(distinct(product_code)) as A FROM gdb023.fact_sales_monthly
    where fiscal_year =2020) AA,
    (select count(distinct(product_code)) as B FROM gdb023.fact_sales_monthly
    where fiscal_year =2021) BB
);
```

	Unique_products_2020	Unique_product_2021	percentage_chg
▶	245	334	36.33

Unique Product 2020 vs 2021

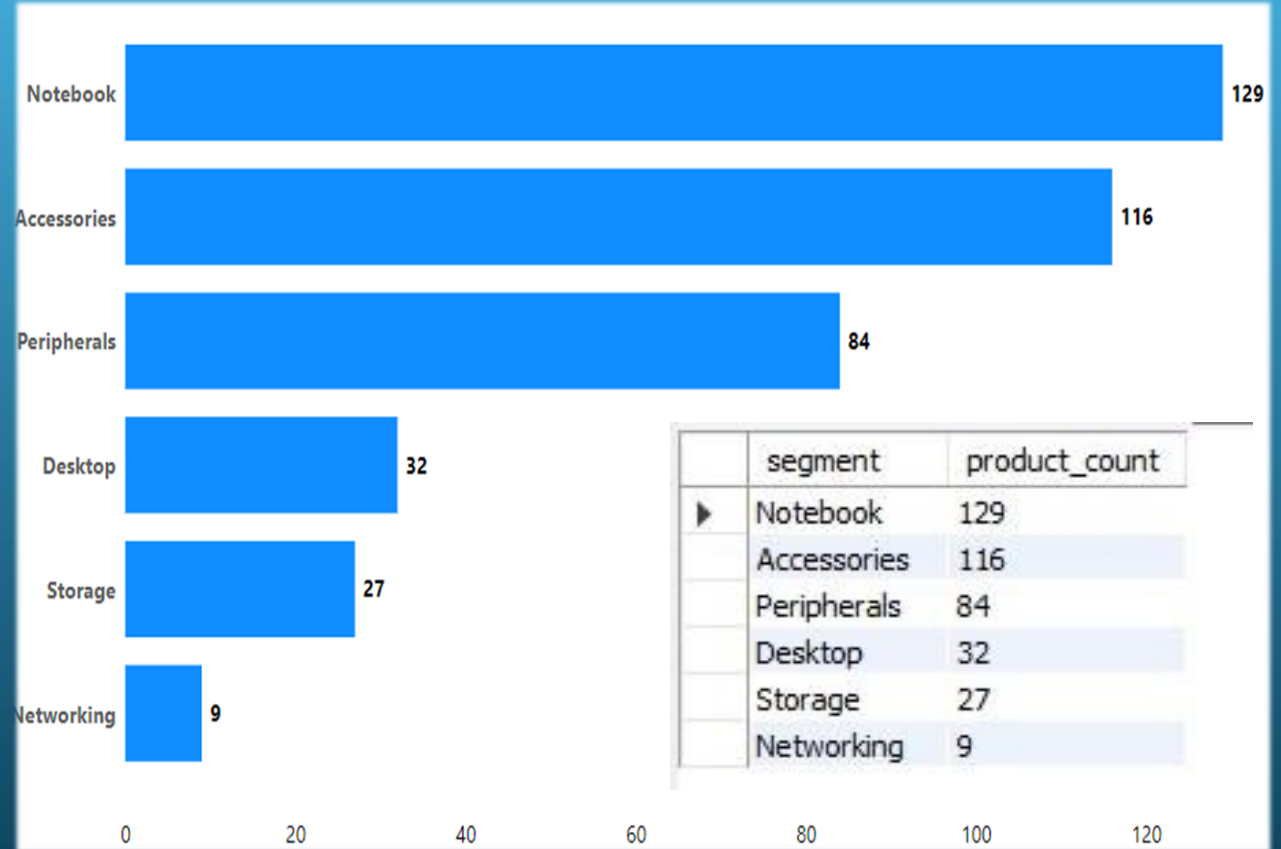


- The unique product increase in 2021 was 36.33%.
- The total products in 2020 were 245, and in 2021, they were 334.

Unique Product Counts by Segment: Sorted in Descending Order

```
select * from dim_product;
select
    segment,
    count(distinct(product_code)) as product_count
from dim_product
group by segment
order by product_count desc;
```

- Notebooks and accessories are dominating.
- while networking is not performing well.



Segment with the Highest Increase in Unique Products: 2021 vs. 2020

Query Details

```
with cte1 as(
select  dp.segment as A,
        count(distinct fs.product_code) as B
from fact_sales_monthly fs
join dim_product dp
on fs.product_code=dp. product_code
group by dp.segment , fs.fiscal_year
having fs.fiscal_year=2020),
    cte2 as(
select  dp.segment as C,
        count(distinct fs.product_code) as D
from fact_sales_monthly fs
join dim_product dp
on fs.product_code=dp. product_code
group by dp.segment, fs.fiscal_year
having fs.fiscal_year= 2021)
select cte1.A as segment, cte1.B as product_code_2020, cte2. D as product_code_2021,
       (cte2.D-cte1.B) as difference
from cte1,cte2
where cte1.A=cte2.C;
```

Data Visualization and Query Results

- Overall product count increased by 89 in 2021.
- Accessories and Notebook segments saw significant growth.
- Networking segment had minimal growth.

segment	uniq pro 2020	uniq pro 2021	Differnce 20 vs 21
⊕ Accessories	69	103	34
⊕ Desktop	7	22	15
⊕ Networking	6	9	3
⊕ Notebook	92	108	16
⊕ Peripherals	59	75	16
⊕ Storage	12	17	5
Total	245	334	89

	segment	product_code_2020	product_code_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

Products with Highest and Lowest Manufacturing Costs

```
select
    m.product_code,
    p.product,
    m.manufacturing_cost
from fact_manufacturing_cost m
join dim_product p
on m.product_code= p.product_code
where manufacturing_cost in (
    select max(manufacturing_cost) from fact_manufacturing_cost
union
    select min(manufacturing_cost) from fact_manufacturing_cost
)
order by manufacturing_cost desc
;
```



\$240.54

A6120110206
Desktop



\$0.89

A2118150101
Accessories

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

- AQ HOME Allin1 Gen 2" has the highest manufacturing cost.
- AQ Master wired x1 Ms" has the lowest manufacturing cost.

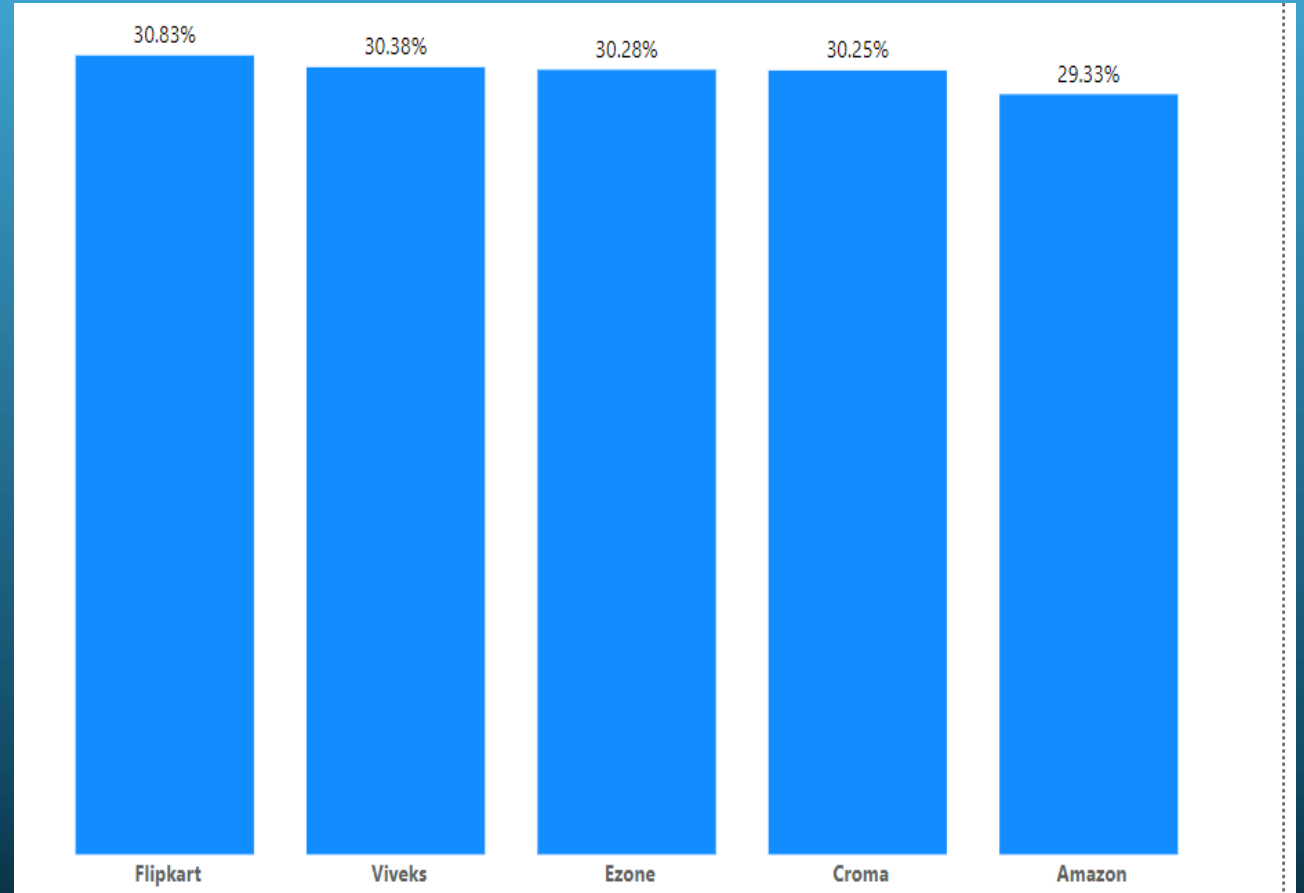
Top 5 Customers with Highest Average Pre-Invoice Discount Percentage in Indian Market: FY 2021 | Query Details

```
with cte1 as (select customer_code as A ,  
                  Avg(pre_invoice_discount_pct) as B from fact_pre_invoice_deductions  
where fiscal_year = 2021  
group by customer_code),  
cte2 as ( select customer_code as C, customer as D from dim_customer  
          where market ="India")  
  
select cte2.C as customer_code,  
       cte2.D as cutsomer,  
       round(cte1.B,4) as Average_discount_percentage  
from cte1,cte2  
where cte1.A= cte2.C  
order by Average_discount_percentage desc  
limit 5;
```

Visual Insights and Query Output

	customer_code	cutsomer	Average_discount_percentage
▶	90002009	Flipkart	0.3083
	90002006	Viveks	0.3038
	90002003	Ezone	0.3028
	90002002	Croma	0.3025
	90002016	Amazon	0.2933

- Flipkart has the highest market share with 30.83%.
- There is a close competition among the top 4 players with similar market shares.

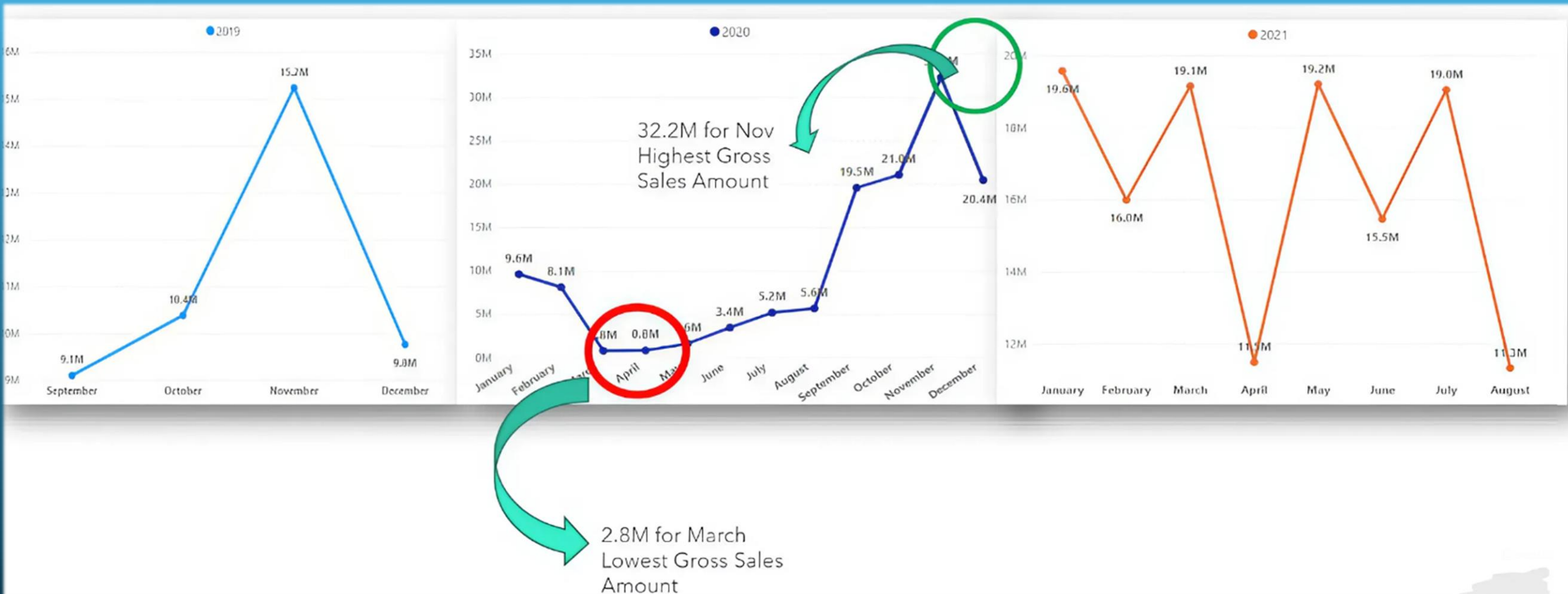


Monthly Gross Sales Report for Atliq-Exclusive: Identifying High and Low-Performing Months

```
with cte1 as (  
  select  
    monthname(s.date) as A,  
    year(s.date) as B ,  
    s.fiscal_year,  
    (g.gross_price*s.sold_quantity) as C  
  from fact_sales_monthly s  
  join fact_gross_price g on s.product_code=g.product_code  
  join dim_customer c on s.customer_code=c.customer_code  
  where c.customer="Atliq Exclusive")  
  
select A as month,B as Year, round(sum(C),2) as Gross_sales_amount from cte1  
group by month,Year  
order by year;
```

month	Year	Gross_sales_amount
September	2019	9092670.34
October	2019	10378637.6
November	2019	15231894.97
December	2019	9755795.06
January	2020	9584951.94
February	2020	8083995.55
March	2020	766976.45
April	2020	800071.95
May	2020	1586964.48
June	2020	3429736.57
July	2020	5151815.4
August	2020	5638281.83
September	2020	19530271.3
October	2020	21016218.21
November	2020	32247289.79
December	2020	20409063.18
January	2021	19570701.71
February	2021	15986603.89
March	2021	19149624.92
April	2021	11483530.3
May	2021	19204309.41
June	2021	15457579.66
July	2021	19044968.82
August	2021	11324548.34

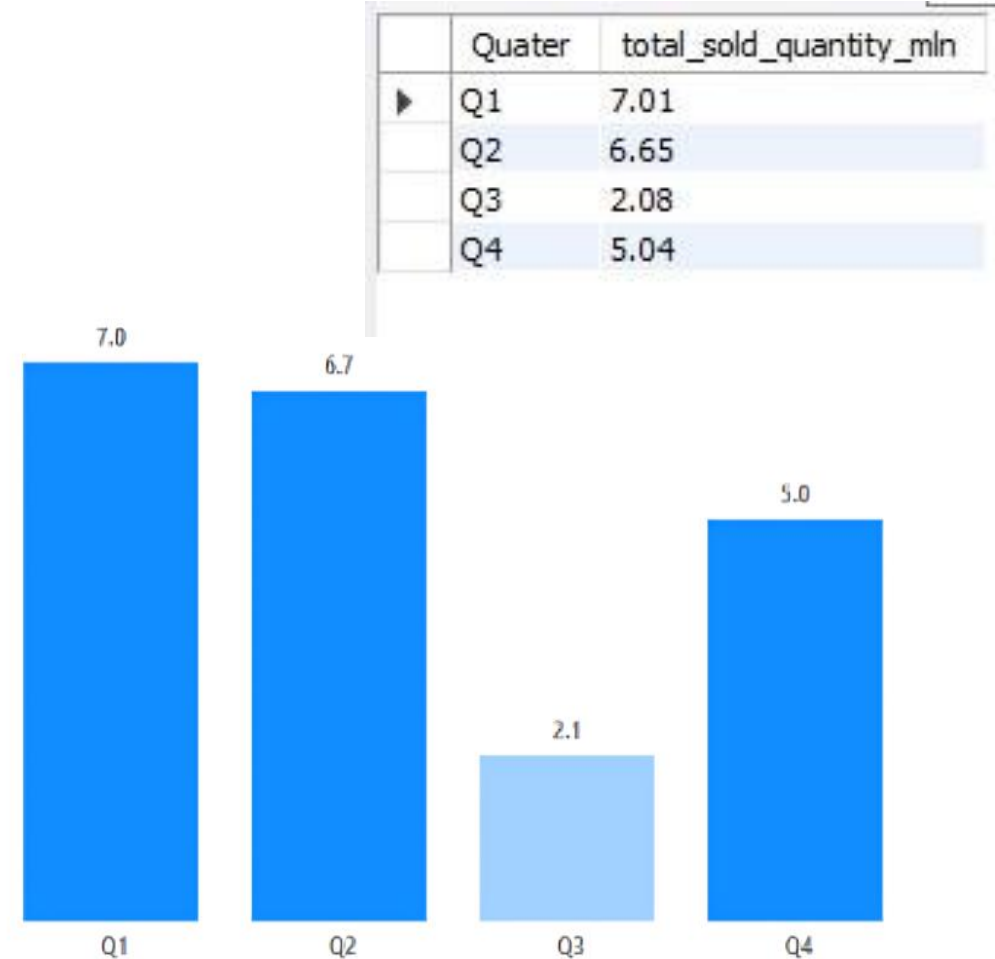
Visual Insights



Quarter of 2020 with Maximum Total Sold Quantity

```
SELECT
  case
    when month(date) in ( 9,10,11) then "Q1"
    when month(date) in (12,1,2) then "Q2"
    when month(date) in (3,4,5) then "Q3"
    when month(date) in (6,7,8) then "Q4"
  end as Quater,
  round(sum(sold_quantity)/1000000,2) as total_sold_quantity_mln
from fact_sales_monthly
where fiscal_year=2020
group by Quater;
```

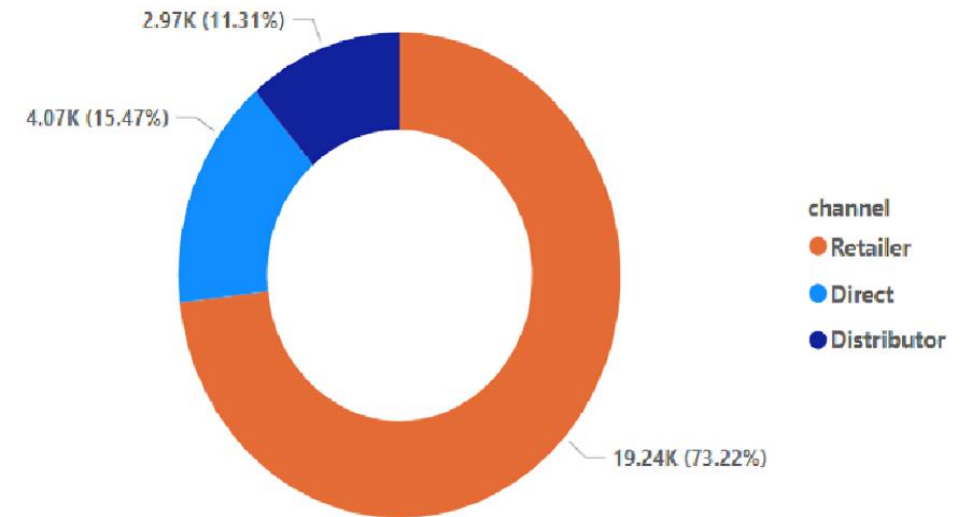
- Q1 and Q2 had the highest number.
- Q3 saw a significant drop compared to other quarters.



Top Sales Channel and Its Contribution Percentage: FY 2021

```
with cte1 as (  
  select c.channel,  
         sum(s.sold_quantity*g.gross_price) as total_sales  
  from fact_sales_monthly s  
  join fact_gross_price g on s.product_code=g.product_code  
  join dim_customer c on s.customer_code=c.customer_code  
  where s.fiscal_year=2021  
  group by c.channel  
)  
select  
  channel,  
  round(total_sales/100000,2) as gross_sales_mln,  
  round((total_sales)/sum(total_sales)over()*100,2) as percentage  
from cte1  
order by percentage desc;
```

- Retailer channel dominates with 73.22% of gross sales.
- Direct and Distributor channels contribute 15.47% and 11.31%, respectively.



	channel	gross_sales_mln	percentage
►	Retailer	19241.70	73.22
	Direct	4066.87	15.47
	Distributor	2971.76	11.31

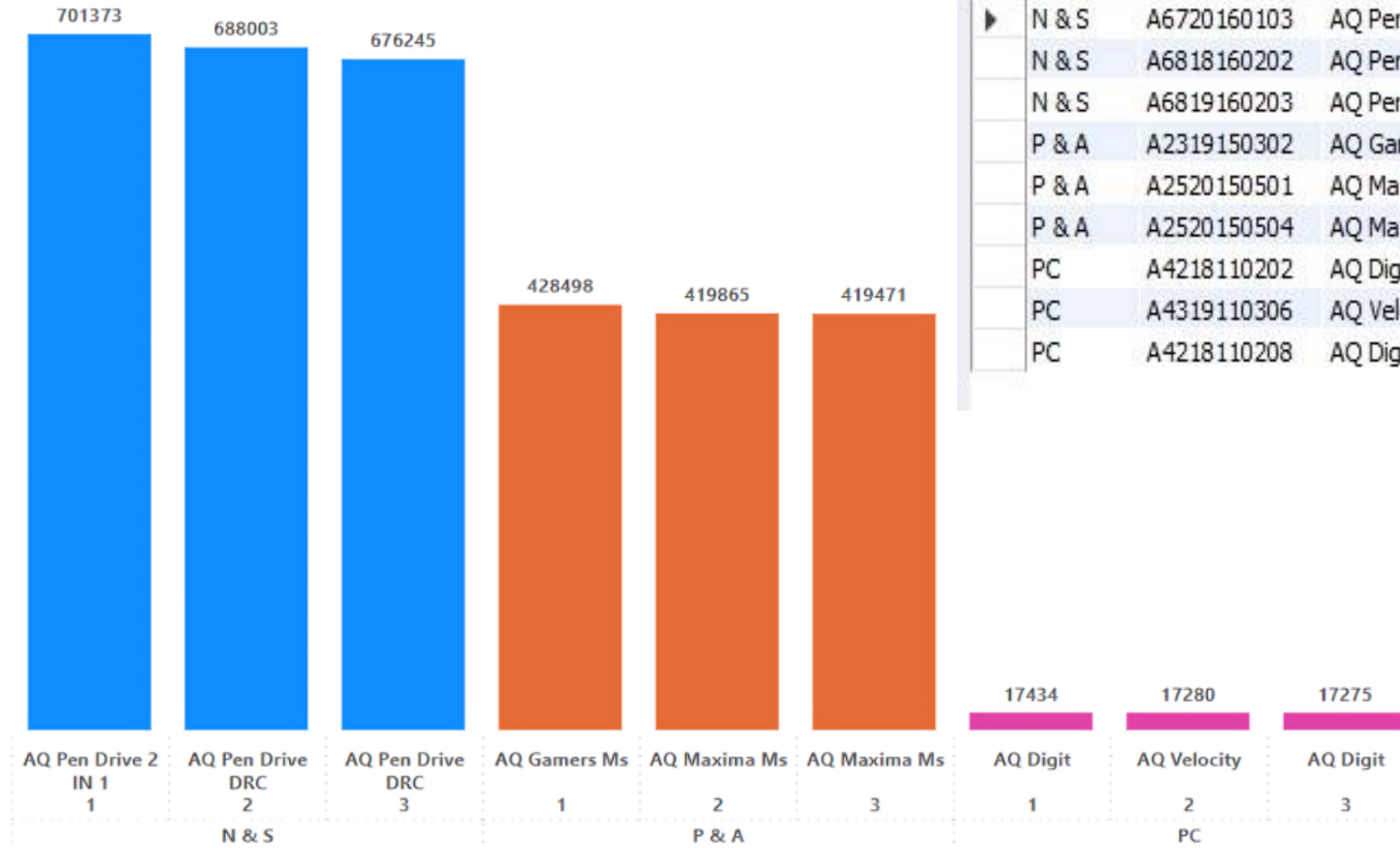
Top 3 Products by Total Sold Quantity in Each Division: FY 2021 | Query Details

```
with cte1 as(select
    p.division,
    s.product_code,
    p.product,
    sum(s.sold_quantity) as total_sold_quantity,
    rank() over(partition by division order by sum(s.sold_quantity) desc)
from fact_sales_monthly s
join dim_product p on s.product_code=p.product_code
where s.fiscal_year=2021
group by p.product,division,s.product_code)

select * from cte1
where rank_order in (1,2,3);
```


Data Representation: Graphs and Tables

	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



Thank You!

If you have any questions or need assistance, please feel free to reach out to me. I'll be happy to help.

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