Ad Hoc Insights
Consumer Goods

CREATED BY
RAHUL TANWANI

Agenda
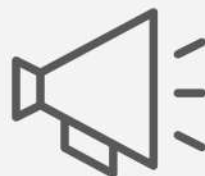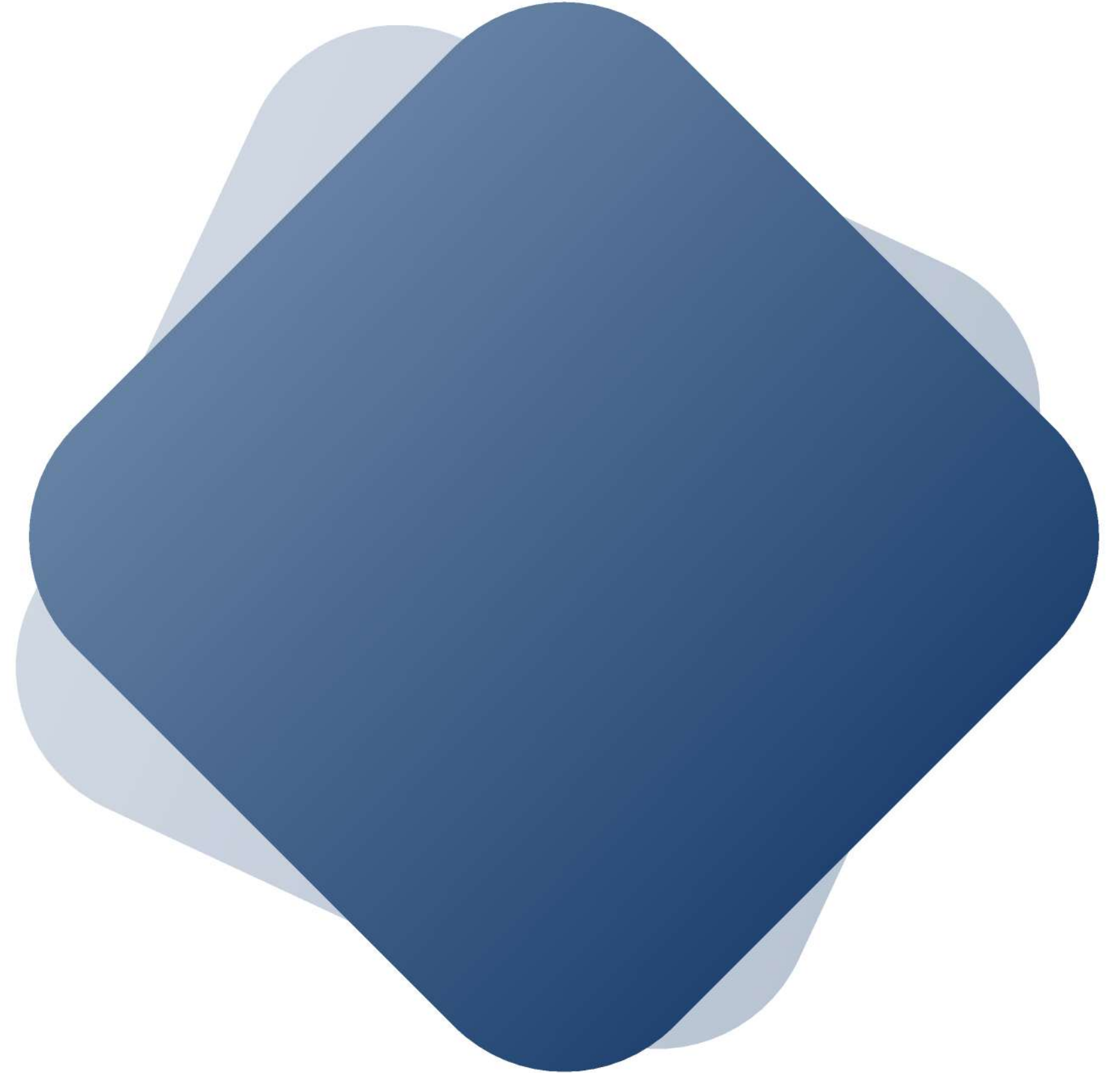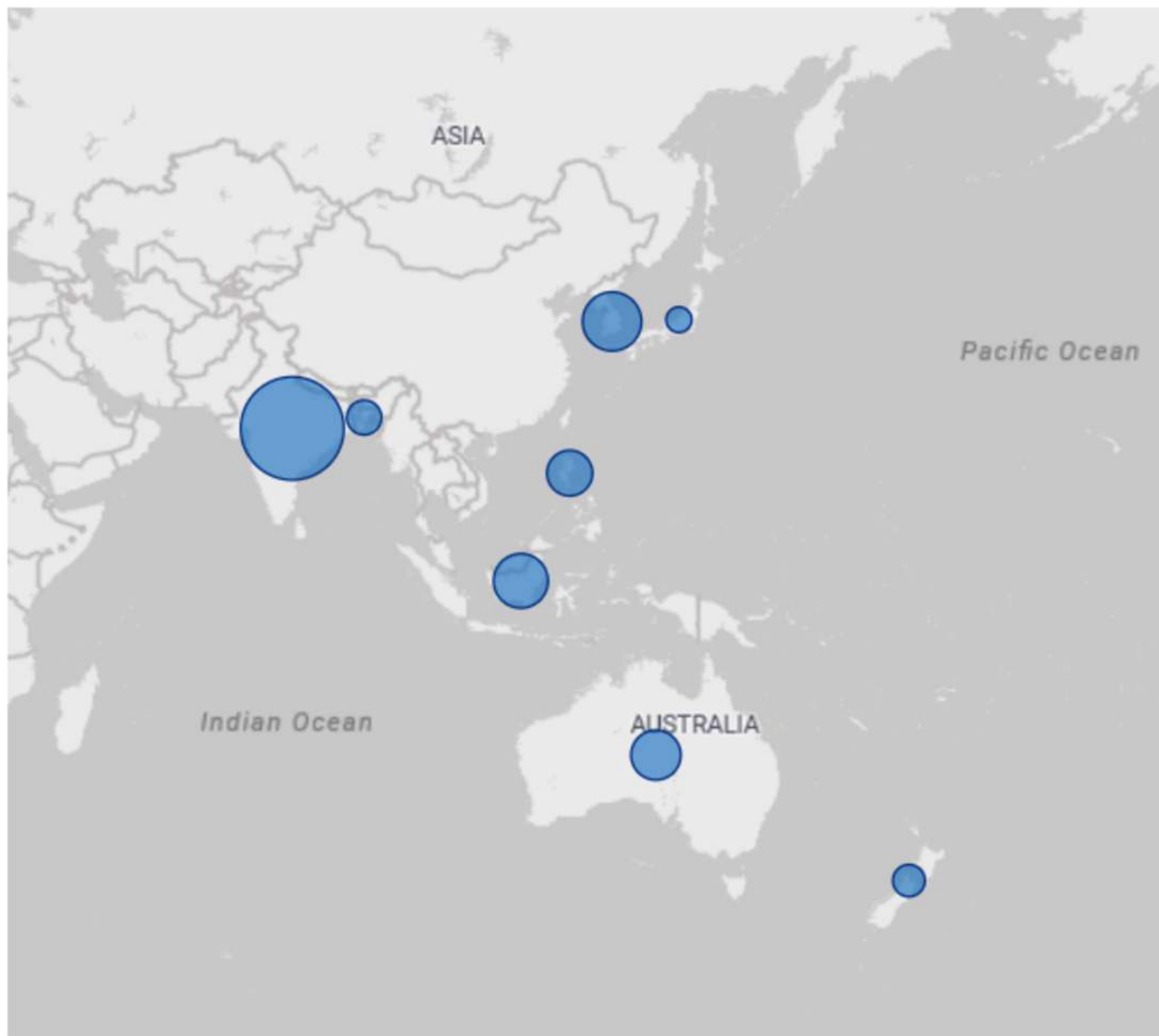
About the
Company

- Atliq Hardware, one of the leading computer hardware producers in India with customers from across the globe, wants to get insights on company product sales to make data-informed decisions
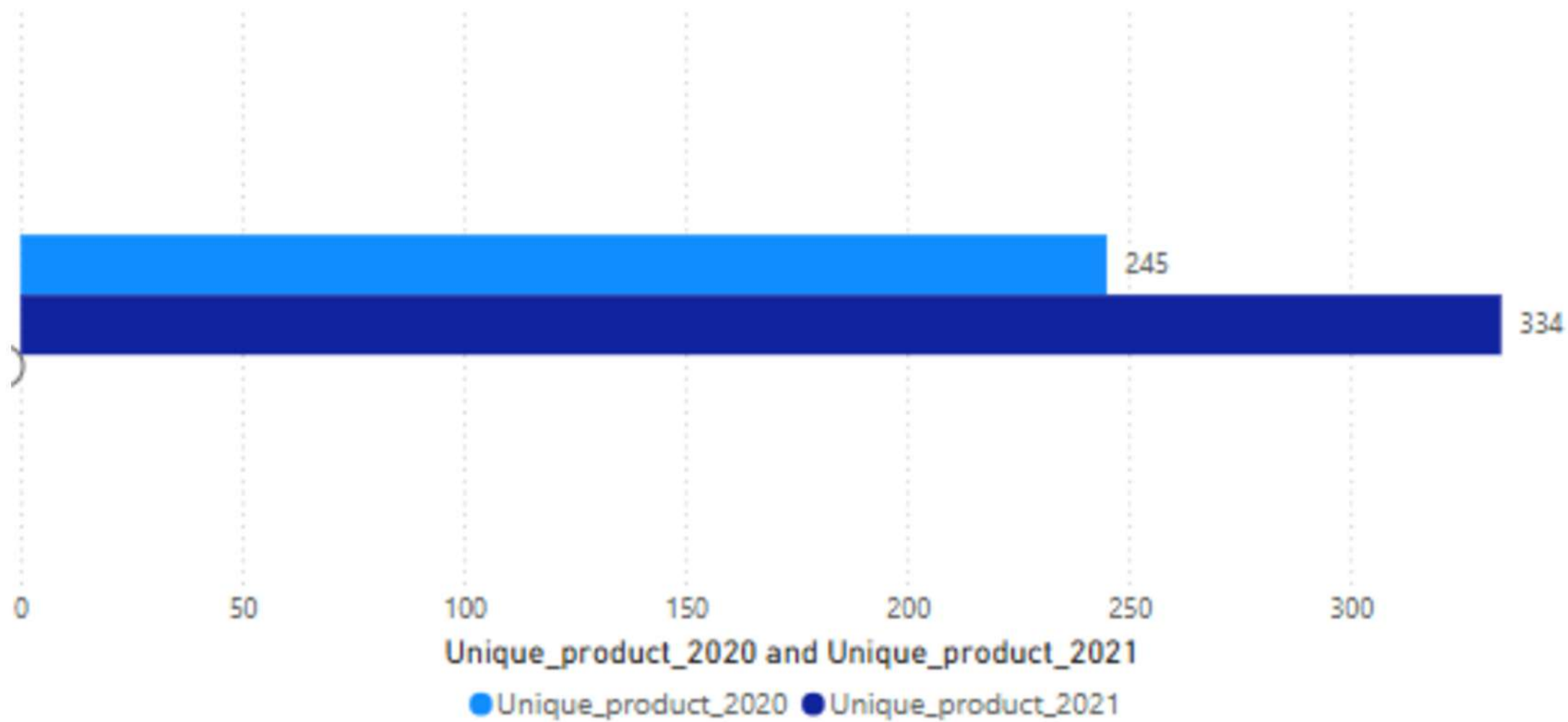
INSIGHTS

Q1. LIST OF MARKETS WHERE CUSTOMER "**ATLIQ EXCLUSIVE**" OPERATES BUSINESS IN "**ASIA PACIFIC** " REGION FOR **FISCAL YEAR 2020-2021**

India is a leading market in terms of gross sales for Atliq Exclusive in Asia Pacific region out of 8 countries, followed by, south korea, Indonasia, Australia and others.

INSIGHTS

Q2. What is the percentage change of unique products in 2021 vs 2020?

Unique Products In 2020

245
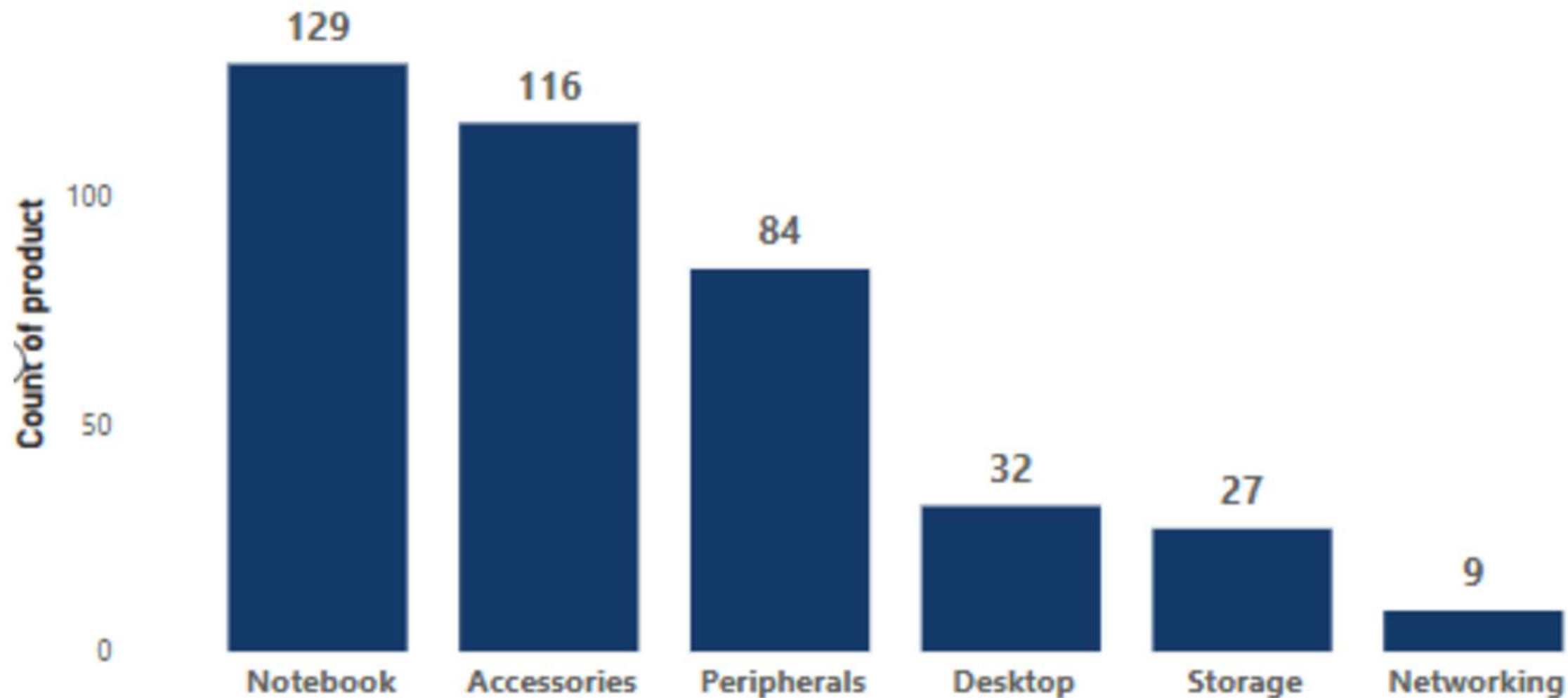
Unique Products In 2021

**334**

Percentage change

36.33%

INSIGHTS

Q3. Provide a report with all the unique product count for each segment and sort them in decending order of product count.

- We have a wide range of products under segment Notebook, Accessories and Peripherals
- While segment like Desktop, Storage, Networking with an lagging behind

INSIGHTS

Q4. Which segment had the most increase in unique products in 2021 vs 2020?
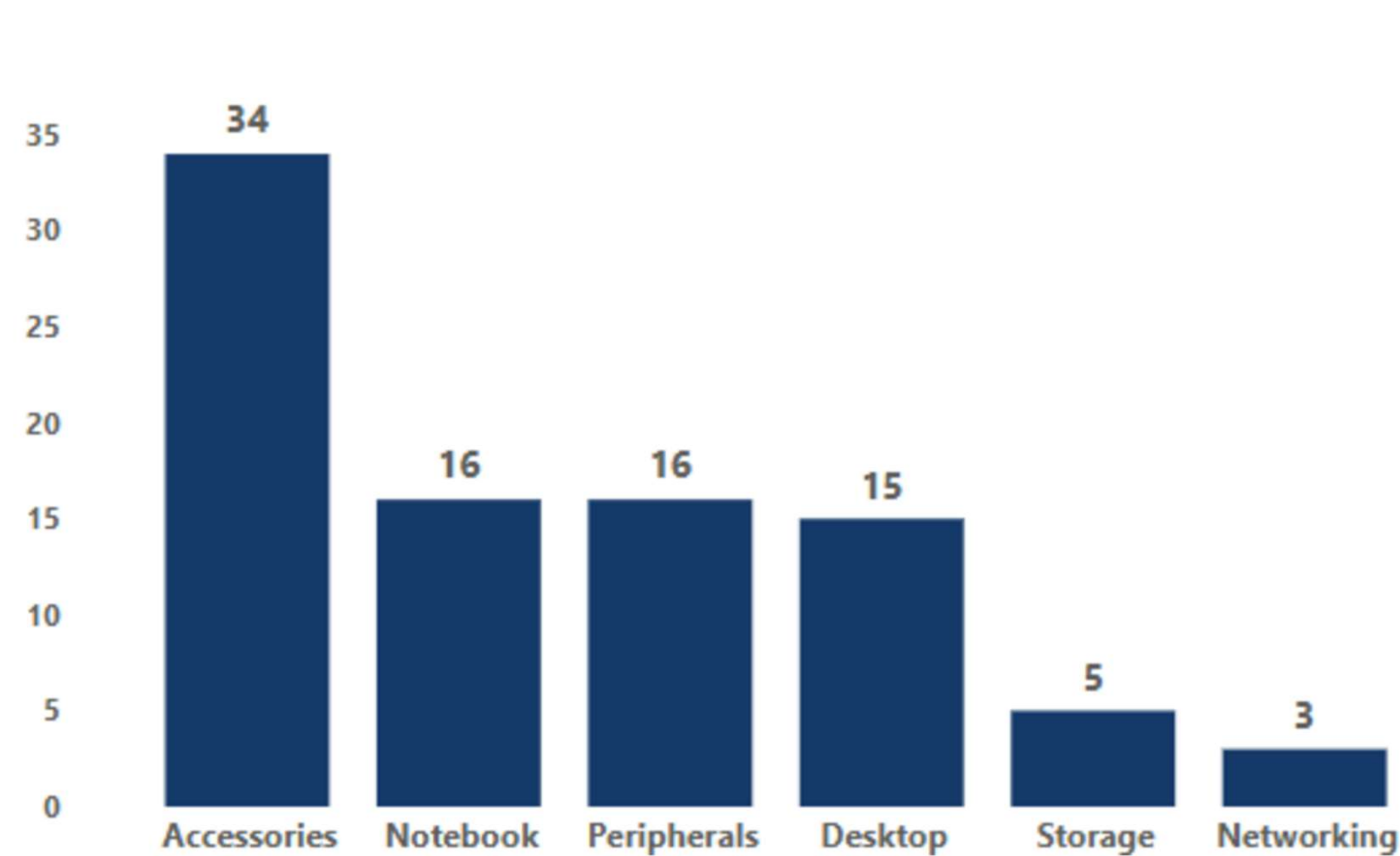
Segment	Product count 2020	Product count 2021	Difference
Accessories	103	69	34
Peripherals	75	59	16
Notebook	108	92	16
Deskstop	22	7	15
Storage	17	12	5
Networking	9	6	3

INSIGHTS

Q5. Get the products that have the highest and lowest manufacturing costs.

HIGHEST MANUFACTURING COST
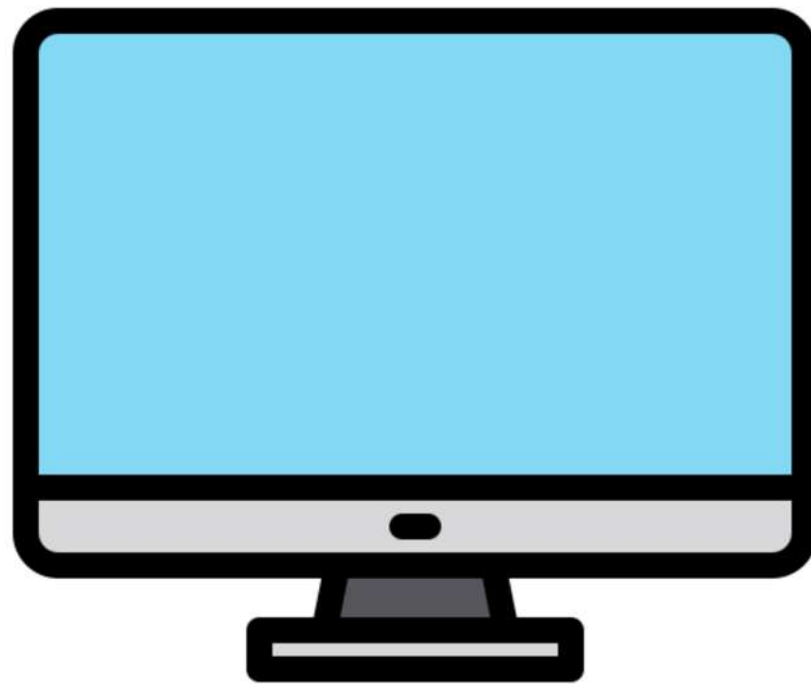
AQ HOME Allin1 Gen2 (Plus 3)
Category: Personal Desktop
Amount : $240.54

LOWEST MANUFACTURING COST
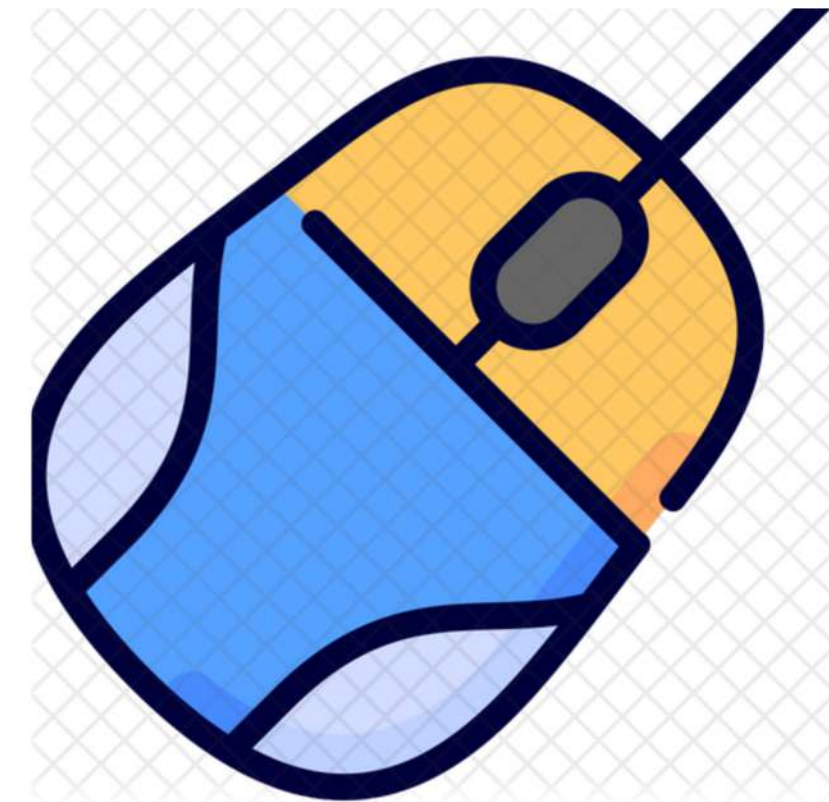
AQ MASTER WIRED X1 MS (standard 1)
Category: Mouse
Amount : $0.89

INSIGHTS

Q6. Generate a report which contains the top 5 customers who received an avarage high pre_invoice_discount_pct for the fiscal year 2021 and in the indian market.
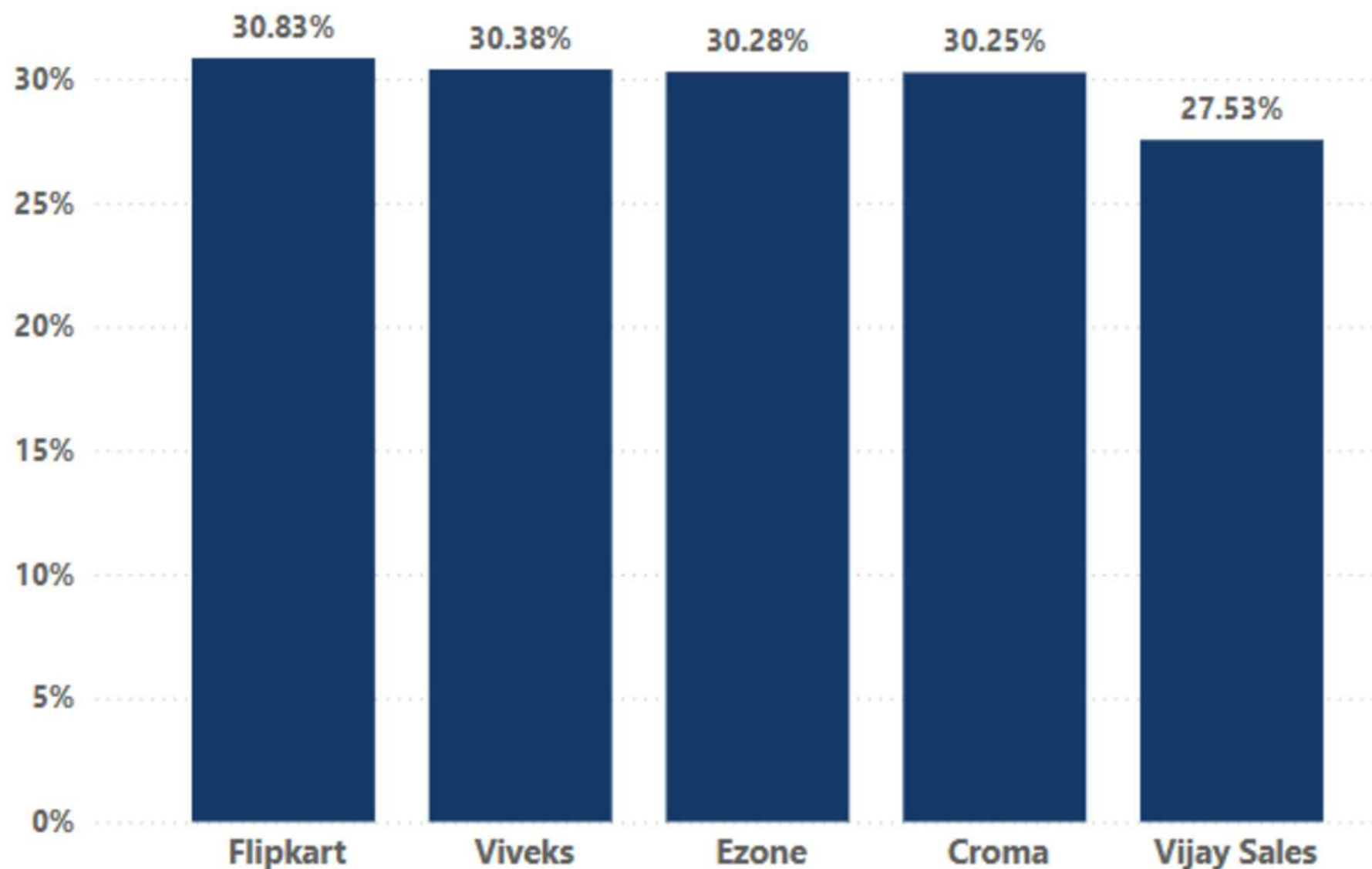
- Flipkart has received the highest pre invoice discount percenat 30.83%
- Top 5 customers have a collective average around 30.21%
- In indian market, Average discount provided to all customers was 24.16%

INSIGHTS

Q7. Get the complete report of the Gross sales amount for the customer "**Atliq Exclusive**" for each month.
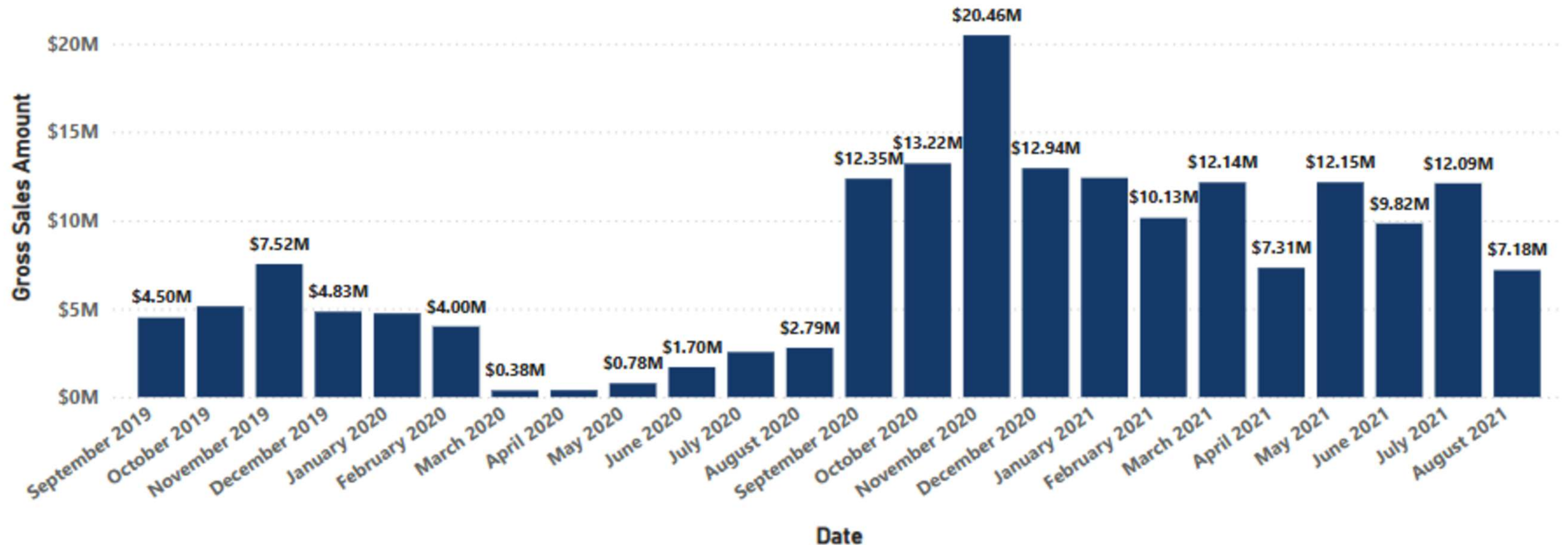
INSIGHTS

Q8. In which quarter of 2020, got the maximum total_sold_quantity?
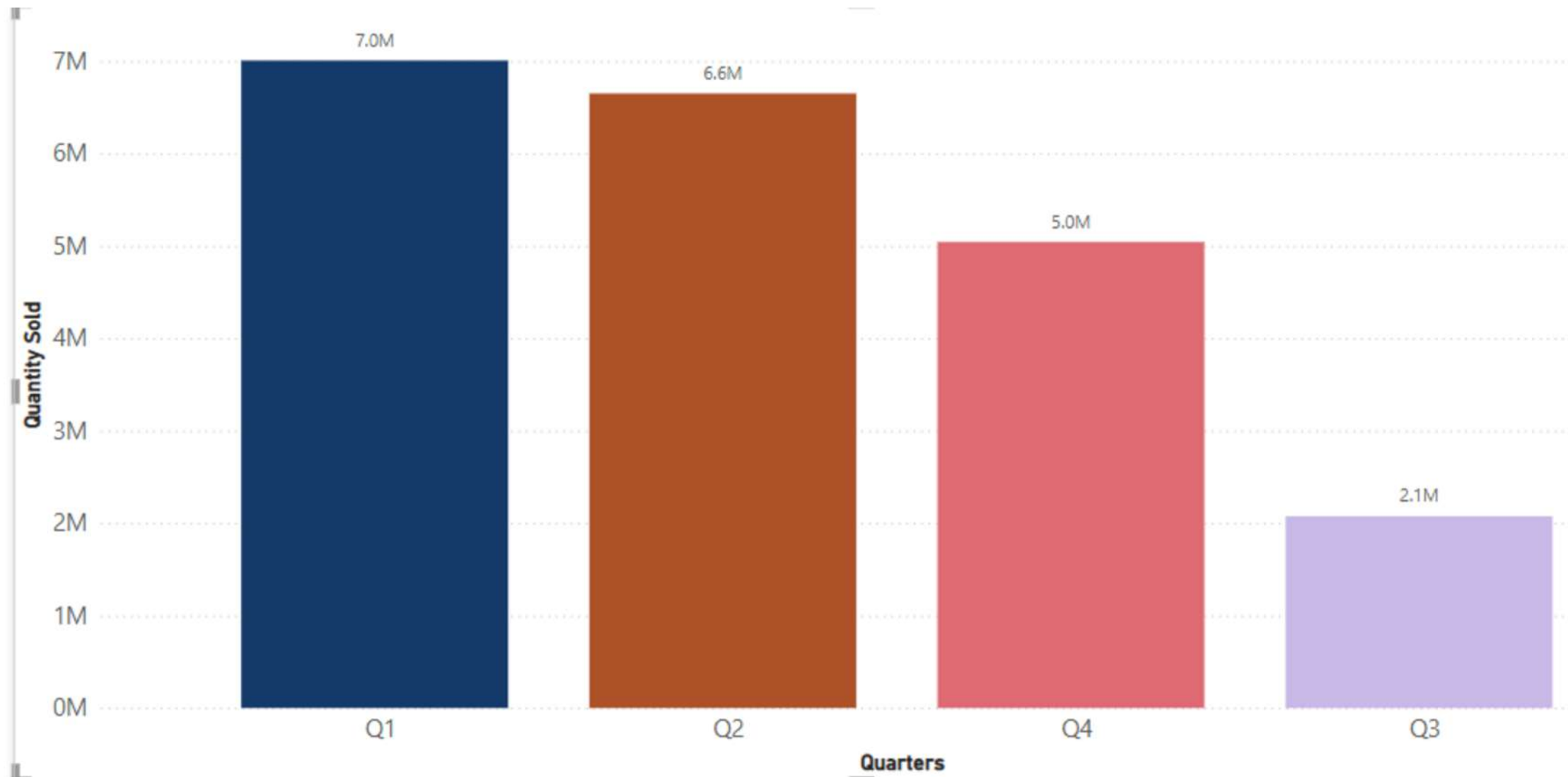
- Q1 had the maximum quantity sold for FY 2020
- sales dropped in Q3 bacause of pandemic

INSIGHTS

Q9. Which channel helped to bring more gross sales in the fiscal year 2021 and the percentage of contribution

Channel	Gross sales	Percentage contribution
Retailer	1219	72.23%
Direct	257.53	15.47%
Distributor	188.03	11.30%
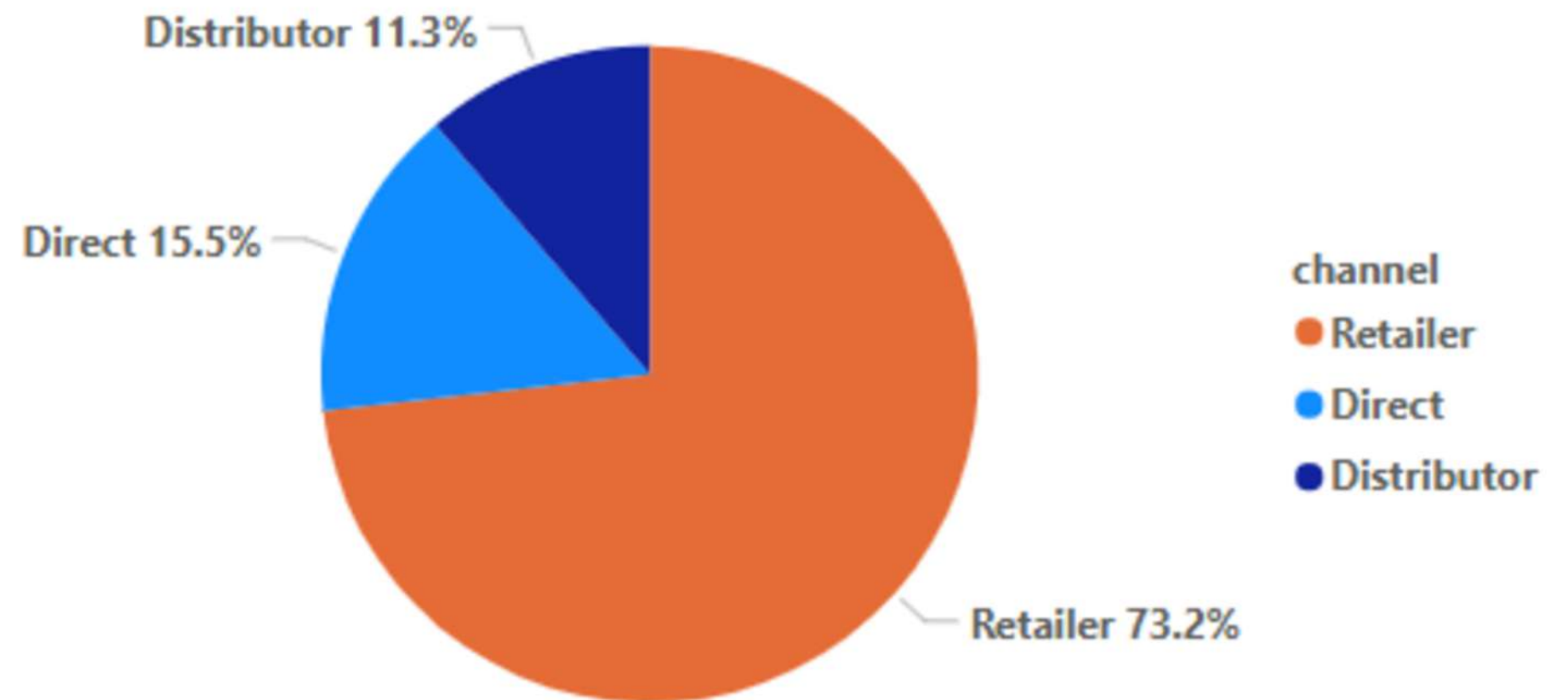
INSIGHTS

Q10. Which channel helped to bring more gross sales in the fiscal year 2021 and the percentage of contribution
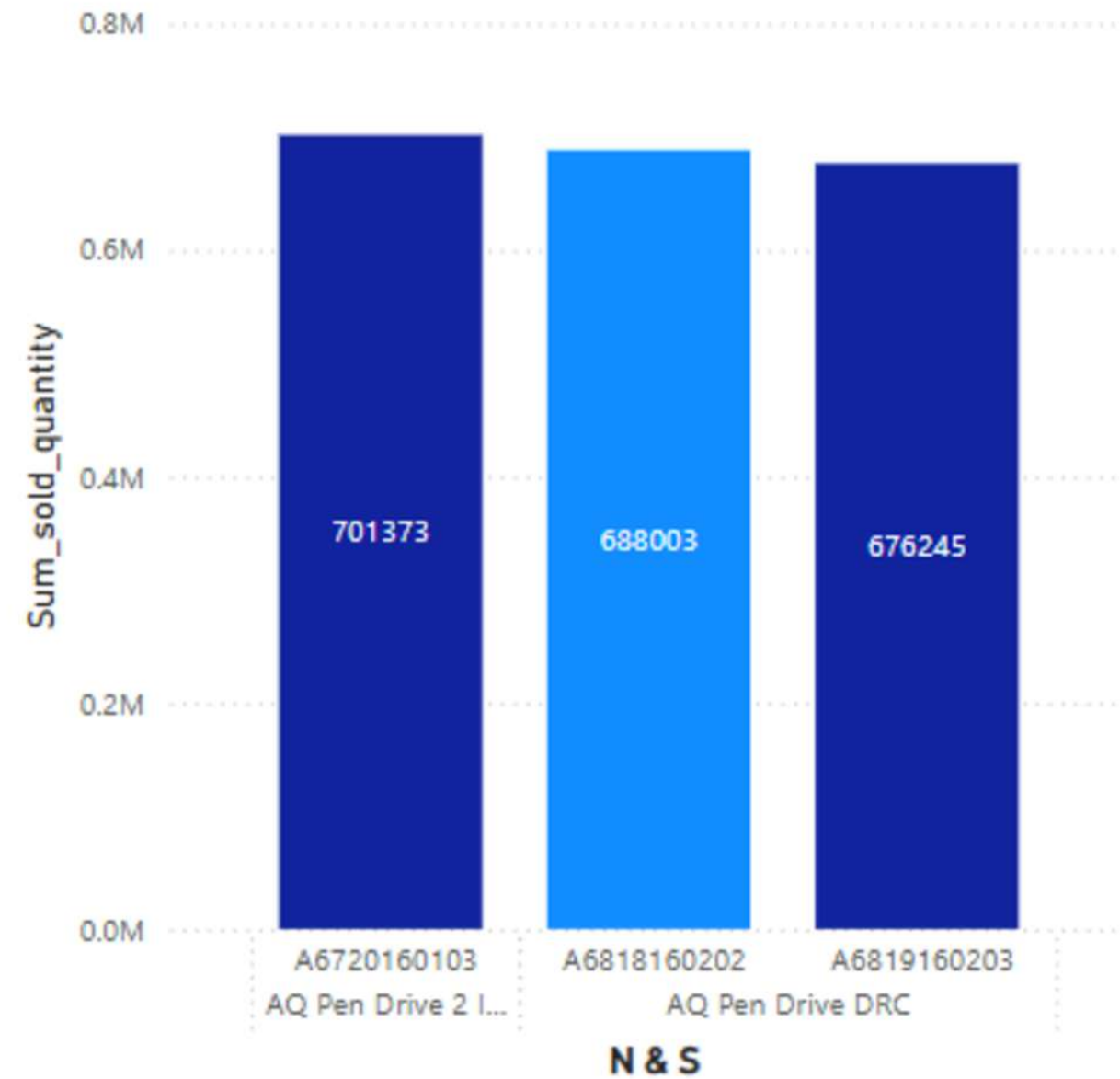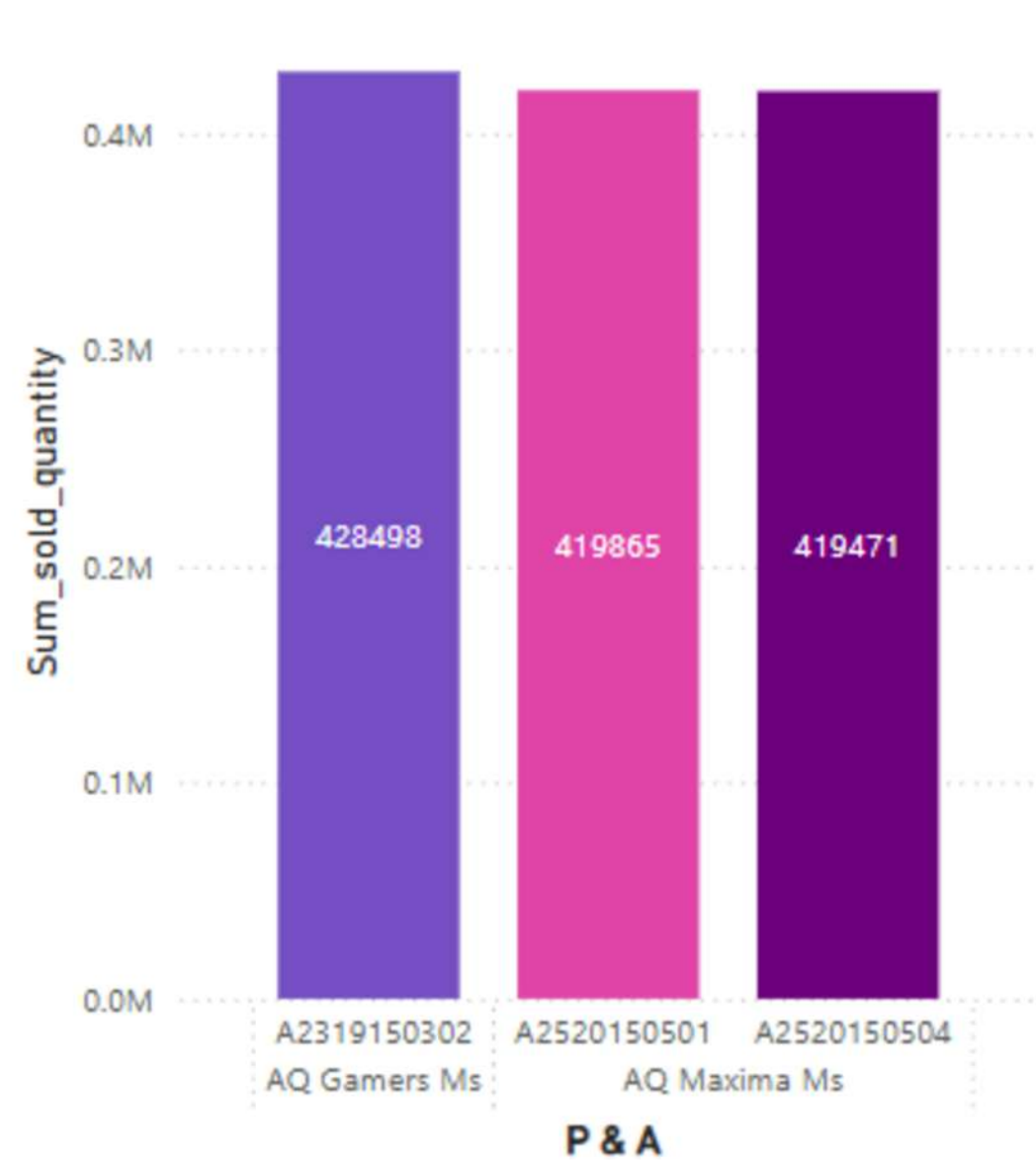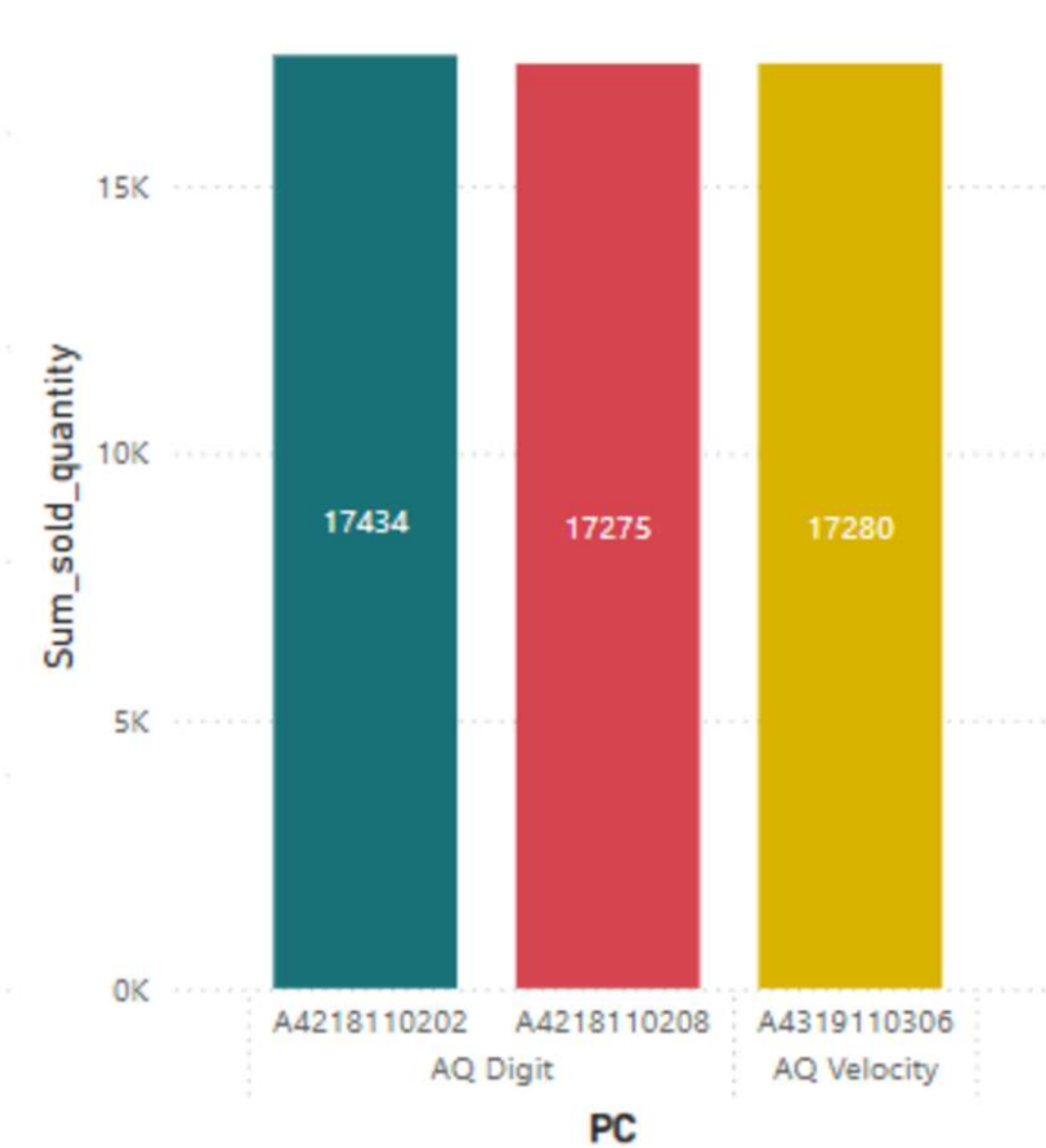
QUERIES

Q1. LIST OF MARKETS WHERE CUSTOMER "ATLIQ EXCLUSIVE" OPERATES BUSINESS IN "ASIA PACIFIC " REGION FOR FISCAL YEAR 2020-2021

```sql
select distinct market
from dim_customer
where customer = 'Atliq Exclusive' and region = 'APAC';
```

Output:

market
India
Indonesia
Japan
Philiphines
South Korea
Australia
Newzealand
Bangladesh

QUERIES

Q2. What is the percentage change of unique products in 2021 vs 2020?

```
with cte20 as
(
select count(distinct (product_code)) as unique_product_2020
from fact_manufacturing_cost
where cost_year = 2020
),
 cte21 as (
select count(distinct (product_code)) as unique_product_2021
from fact_manufacturing_cost
where cost_year = 2021
)
select *,
round((unique_product_2021-unique_product_2020)*100/unique_product_2020,2) as percentage_chg
from cte20
cross join cte21
```

	unique_product_2020	unique_product_2021	percentage_chg
▶	245	334	36.33

QUERIES

Q3. Provide a report with all the unique product count for each segment and sort them in decending order of product count.

```sql
select
segment,
count(distinct (product_code)) as product_cnt
from dim_product
group by segment
order by product_cnt desc
```

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

QUERIES

```sql
with cte20 as (
select P.segment as segment,
count(distinct(p.product_code)) as product_cnt_2020
from dim_product P
join fact_sales_monthly FM
using (product_code)
where fiscal_year = 2020
group by segment
),
cte21 as (
select P.segment as segment,
count(distinct(p.product_code)) as product_cnt_2021
from dim_product P
join fact_sales_monthly FM
using (product_code)
where fiscal_year = 2021
group by segment
)
select cte20.segment as segment,
cte20.product_cnt_2020 as product_cnt_2020,
cte21.product_cnt_2021 as product_cnt_2021,
(cte21.product_cnt_2021 - cte20.product_cnt_2020) as difference
from cte20
join cte21
on cte20.segment = cte21.segment
```

segment	product_cnt_2020	product_cnt_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

QUERIES

Q5. Get the products that have the highest and lowest manufacturing costs.

```sql
select
M.product_code,
product,
M.manufacturing_cost
from fact_manufacturing_cost M
join dim_product P
using(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
```

	product_code	product	manufacturing_cost
▶	A6121110208	AQ HOME Allin1 Gen 2	263.4207
	A2118150101	AQ Master wired x1 Ms	0.8654

QUERIES

Q6. Generate a report which contains the top 5 customers who received an avarage high pre_invoice_discount_pct for the fiscal year 2021 and in the indian market.

```sql
SELECT
    customer_code,
    customer,
    round(avg(pre_invoice_discount_pct)*100,2) as avg_discount
    from fact_pre_invoice_deductions
    join dim_customer
    using (customer_code)
    where fiscal_year = 2021 and market = "India"
    group by customer_code
    order by avg_discount desc
    limit 5
```

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

QUERIES

Q7. Get the complete report of the Gross sales amount for the customer "**Atliq Exclusive**" for each month.

```sql
select monthname(date) as month,
fs.fiscal_year as year,
sum(sold_quantity*gross_price) as gross_sales_amount
 from fact_sales_monthly fs
 join dim_customer c on c.customer_code = fs.customer_code
join fact_gross_price fg on fg.product_code = fs.product_code
where c.customer = 'Atliq Exclusive'
group by month,year
order by fs.Fiscal_year
```

month	year	gross_sales_amount
April	2018	1392024.5088
May	2018	2310946.5235
February	2018	1985466.3557
July	2018	2224693.7551
August	2018	1498728.5550
January	2018	2285937.6654
September	2018	2347703.8801
March	2018	2219880.1380
December	2018	2390015.5550
June	2018	1976109.6071
October	2018	2462780.5498
November	2018	3766114.4348
April	2019	4677628.0952
September	2019	7860039.2548
August	2019	4630439.4247
July	2019	7296958.9770
December	2019	8364101.0184

QUERIES

Q8. In which quarter of 2020, got the maximum total_sold_quantity?

```sql
with cte as
(
select *,
case
when month(date) in (9,10,11) then "Q1"
when month(date) in (12,01,02) then "Q2"
when month(date) in (03,04,05) then "Q3"
else "Q4"
end as Quarter
 from fact_sales_monthly
where fiscal_year  = 2020
)
select
quarter,
sum(sold_quantity) as total_sold_quantity
from cte
group by quarter
order by total_sold_quantity desc;
```

Quarter	total_sold_quantity
Q1	7005619
Q2	6649642
Q4	5042541
Q3	2075087

QUERIES

Q9. Which channel helped to bring more gross sales in the fiscal year 2021 and the percentage of contribution

```sql
•  WITH gross_sales AS
   (
     SELECT c.channel AS channel_,
            ROUND(SUM(b.gross_price*a.sold_quantity)/1000000,2) /* converting values to millions*/
     AS gross_sales_million
     FROM fact_sales_monthly AS a
     LEFT JOIN fact_gross_price AS b
     ON a.product_code = b.product_code
     AND a.fiscal_year = b.fiscal_year
     LEFT JOIN dim_customer AS c
     ON
     a.customer_code = c.customer_code
     WHERE a.fiscal_year = 2021
     GROUP BY c.channel
   )

   SELECT channel_,
          CONCAT('$',gross_sales_million) AS gross_sales_million,
       CONCAT(ROUND(gross_sales_million/ SUM(gross_sales_million) OVER()*100,2),'%') AS percentage
   FROM gross_sales
   ORDER BY percentage DESC;
```

	channel_	gross_sales_million	percentage
▶	Retailer	$1219.08	73.23%
	Direct	$257.53	15.47%
	Distributor	$188.03	11.30%

QUERIES

Q10. Which channel helped to bring more gross sales in the
fiscal year 2021 and the percentage of contribution

```sql
WITH top_sold_products AS
(
    SELECT b.division AS division,
           b.product_code AS product_code,
           b.product AS product,
           SUM(a.sold_quantity) AS total_sold_quantity
    FROM fact_sales_monthly AS a
    INNER JOIN dim_product AS b
    ON a.product_code = b.product_code
    WHERE a.fiscal_year = 2021
    GROUP BY  b.division, b.product_code, b.product
    ORDER BY total_sold_quantity DESC
),
top_sold_per_division AS
(
    SELECT division, product_code, product,
           total_sold_quantity,
           DENSE_RANK() OVER(PARTITION BY division ORDER BY total_sold_quantity DESC) AS rank_order
    FROM top_sold_products
)
SELECT * FROM top_sold_per_division
WHERE rank_order <= 3;
```

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

THANKS
FOR
WATCHING