



Atliq Hardware

# CONSUMER GOOD ADHOC INSIGHT

R E S U M E  
C H A L L E N G E



Atliq Hardware

# AGENDA

1.) INTRODUCTION

2.) INSIGHTS

3.) CONCLUSION



Atliq Hardware

# INTRODUCTION

Atliq Hardwares is a leading computer hardware producer based in India, with a presence in multiple countries around the globe. Despite its growth, the management has observed that the company lacks sufficient insights for making quick, data-informed decisions.

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

```
SELECT DISTINCT  
    market  
FROM  
    dim_customer  
WHERE  
    customer = 'Atliq Exclusive'  
    AND region = 'APAC';
```

market
India
Indonesia
Japan
Philippines
South Korea
Australia
Newzealand
Bangladesh



Bangladesh

India

South Korea

Japan

Philippines

Indonesia

Australia

New Zealand

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 ?

```
WITH a AS (
    SELECT COUNT(DISTINCT product_code) AS products_2020
    FROM fact_sales_monthly
    WHERE fiscal_year = 2020
),
b AS (
    SELECT COUNT(DISTINCT product_code) AS products_2021
    FROM fact_sales_monthly
    WHERE fiscal_year = 2021
)
SELECT
    a.products_2020,
    b.products_2021,
    ROUND((b.products_2021 - a.products_2020) * 100.0 / a.products_2020, 2) AS percentage_chg
FROM a, b;
```

## 2020 Vs 2021

● Products\_2020 ● Products\_2021



## INSIGHTS:

- i. This likely led to increased demand for new technology solutions and computer hardware, driving Atliq Hardwares to expand its product range to meet evolving customer requirements.
- ii. Expansion of Product Line: In response to increased market demand and opportunities, Atliq Hardwares may have strategically introduced new products to capture emerging segments, cater to specific customer needs, or strengthen its competitive position.

products_2020	products_2021	percentage_chg
245	334	36.33

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

```
SELECT  
    segment, COUNT(DISTINCT product_code) AS product_count  
FROM  
    dim_product  
GROUP BY segment  
ORDER BY product_count DESC;
```

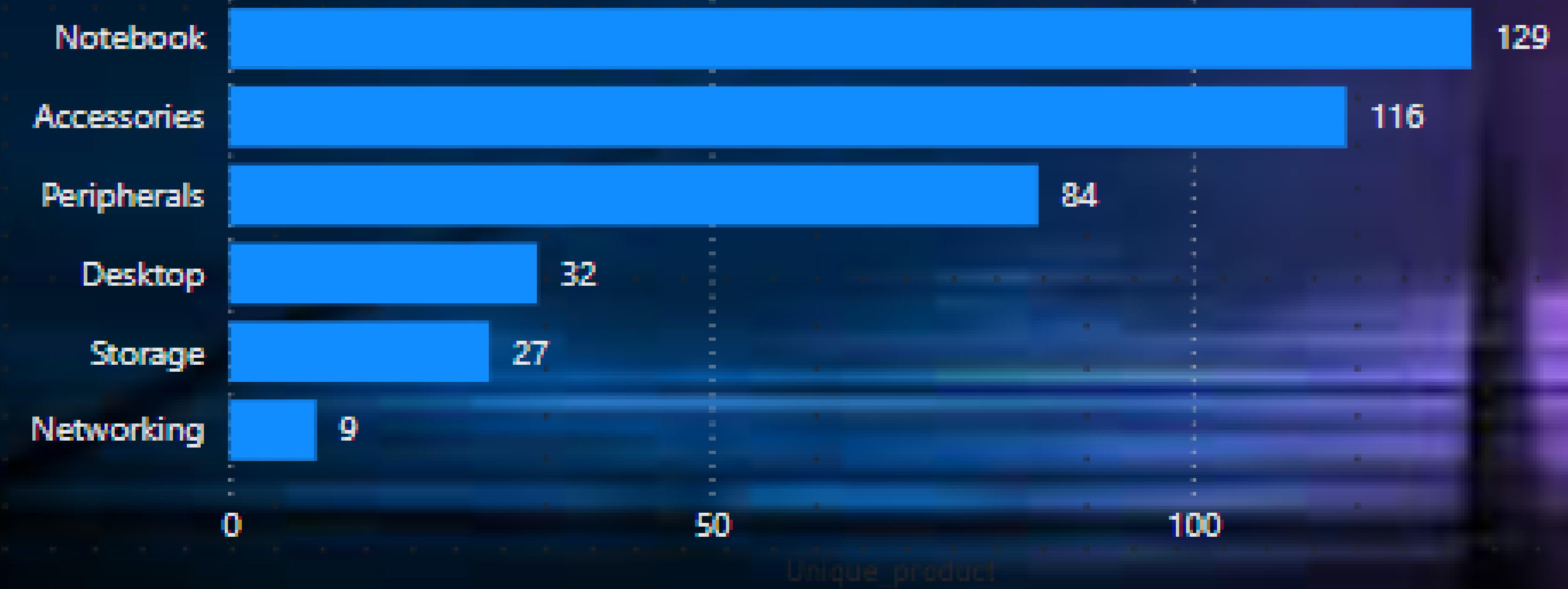


segment	product_count
Notebook	129
Accessories	116
Peripherals	84
Desktop	32
Storage	27
Networking	9

#### INSIGHT

Atliq Hardware should maintain and expand its Notebook segment to capitalize on strong market demand. For Networking Devices, the company should explore potential growth by introducing advanced products if there's demand. Alternatively, if profitability remains low, or consider discontinuing this segment to focus resources on more profitable areas.

## Unique\_product by segment



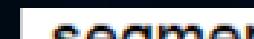
4. Follow-up: Which segment had the most increase in unique products in 2021 vs 2020? The final output contains these fields, segment product\_count\_2020 product\_count\_2021difference

```
WITH cte1 as (select
p.segment,
count(distinct p.product_code) as product_count_2020
from dim_product p
join fact_sales_monthly f
on p.product_code = f.product_code
where fiscal_year = 2020
group by p.segment
order by product_count_2020 desc),
cte2 as (select
p.segment,
count(distinct p.product_code) as product_count_2021
from dim_product p
join fact_sales_monthly f
on p.product_code = f.product_code
where fiscal_year = 2021
group by p.segment)
```

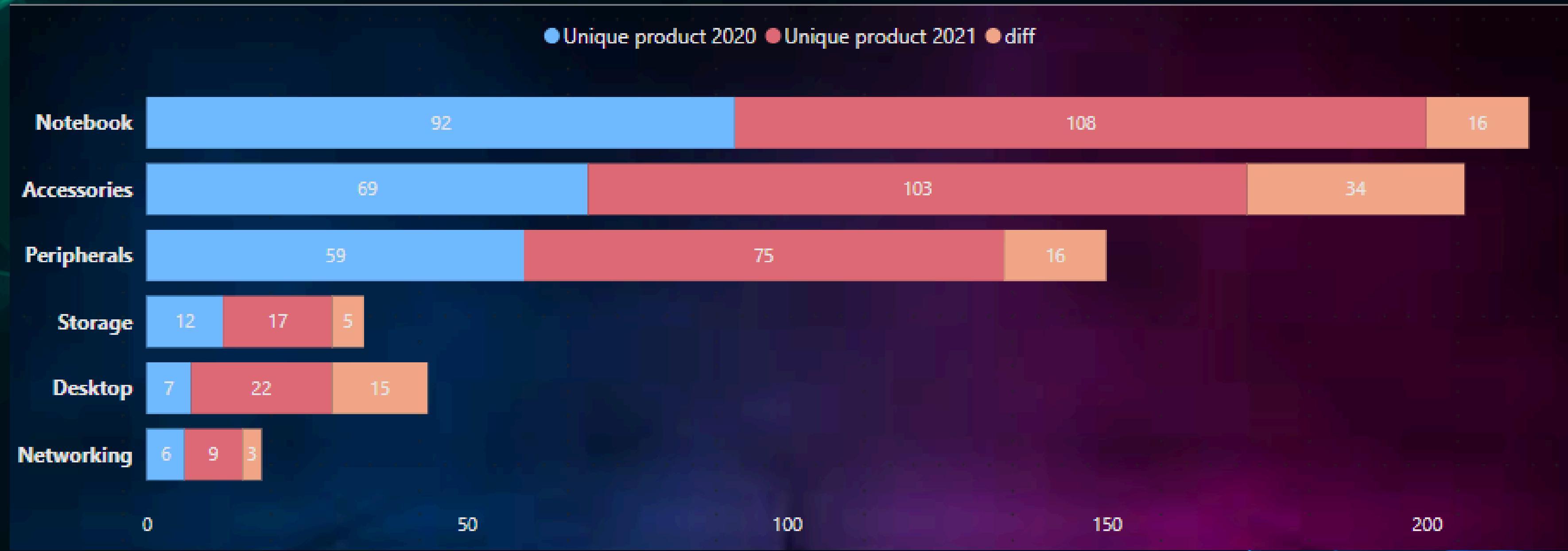


```
order by product_count_2021 desc)

select
cte1.segment,
cte1.product_count_2020,
cte2.product_count_2021,
((cte2.product_count_2021)-(cte1.product_count_2020)) as difference
from cte1, cte2
where cte1.segment = cte2.segment
group by cte1.segment
order by difference desc;
```



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



The significant increase in unique products from 2020 to 2021 likely reflects Atliq Hardware's response to heightened demand during the COVID-19 pandemic

5. Get the products that have the highest and lowest manufacturing costs. The final output should contain these fields, product\_code product manufacturing\_cost

```
WITH cte1 AS (
    SELECT
        d.product_code,
        d.product,
        ROUND(m.manufacturing_cost, 2) AS manufacturing_cost
    FROM dim_product d
    JOIN fact_manufacturing_cost m
        ON m.product_code = d.product_code
    WHERE m.manufacturing_cost = (
        SELECT MAX(manufacturing_cost) FROM fact_manufacturing_cost
    )
),
cte2 AS (
    SELECT
        d.product_code,
        d.product,
```

```
        d.product,
        ROUND(m.manufacturing_cost, 2) AS manufacturing_cost
    FROM dim_product d
    JOIN fact_manufacturing_cost m
        ON m.product_code = d.product_code
    WHERE m.manufacturing_cost = (
        SELECT MIN(manufacturing_cost) FROM fact_manufacturing_cost
    )
)
SELECT cte1.product_code,
       cte1.product,
       cte1.manufacturing_cost
FROM cte1
UNION
SELECT cte2.product_code,
       cte2.product,
       cte2.manufacturing_cost
FROM cte2;
```



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

AQ Master wired x1 Ms  
product

0.89

min\_mnf\_cost

Mouse

category

AQ HOME Allin1 Gen 2

product

240.54

max\_mnf\_cost

Personal Desktop

category

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

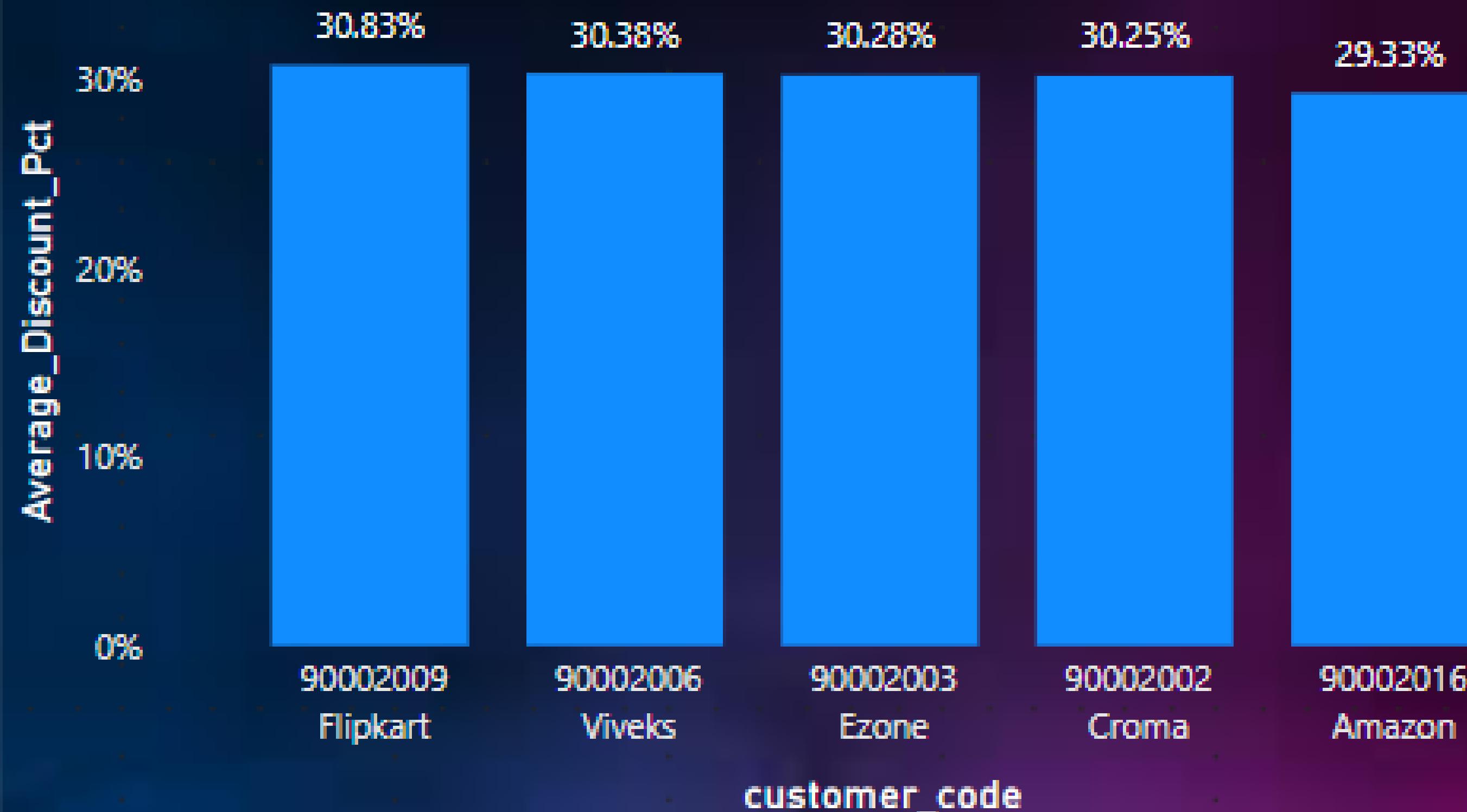
```
SELECT
    d.customer_code,
    d.customer,
    ROUND(AVG(f.pre_invoice_discount_pct) * 100, 2) AS average_discount_percentage
FROM dim_customer d
JOIN fact_pre_invoice_deductions f
    ON d.customer_code = f.customer_code
WHERE f.fiscal_year = 2021
    AND d.market = 'India'
GROUP BY d.customer_code, d.customer
ORDER BY average_discount_percentage DESC
LIMIT 5;
```



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

Flipkart received the highest average pre-invoice discount in 2021, suggesting a competitive pricing strategy to capture market share. Amazon, with the lowest discount, may indicate stronger negotiation power or less focus on price-sensitive promotions.

## Average\_Discount\_Pct by customer and customer\_code



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

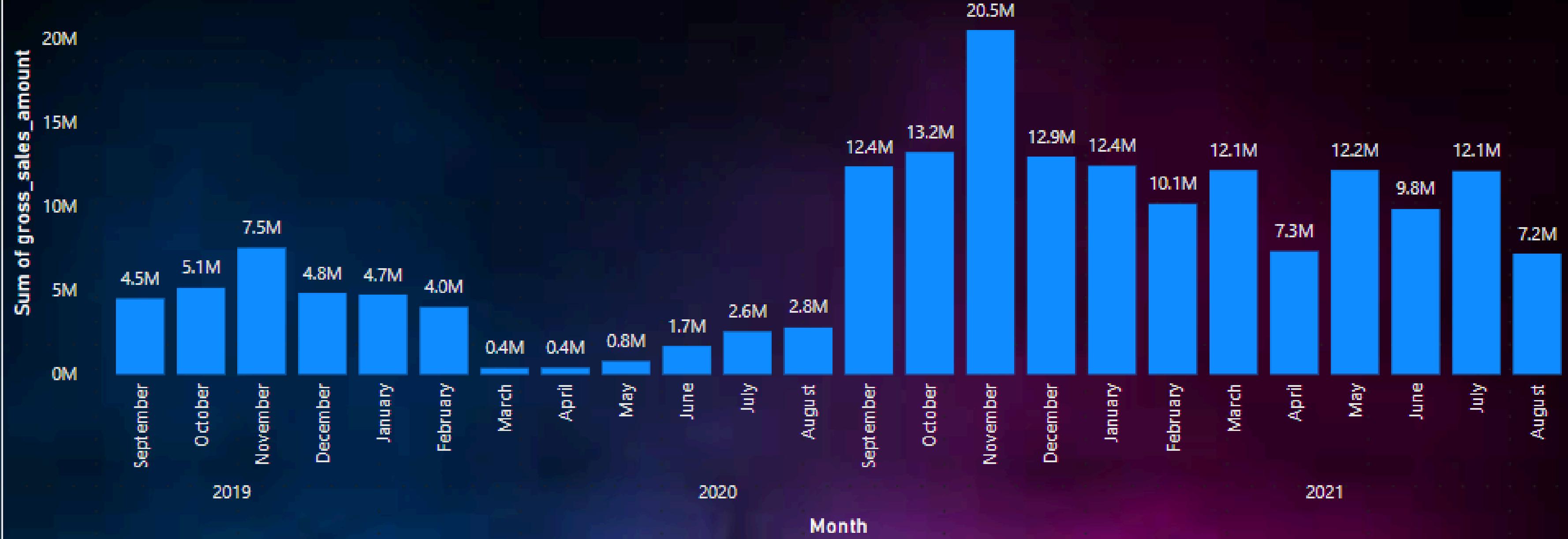
```
WITH cte1 AS (
  SELECT
    MONTHNAME(s.date) AS Month,
    s.fiscal_year AS Fiscal_year,
    s.customer_code,
    s.sold_quantity,
    g.gross_price
  FROM fact_sales_monthly s
  JOIN fact_gross_price g
    ON s.product_code = g.product_code
    AND s.fiscal_year = g.fiscal_year
  JOIN dim_customer c
    ON c.customer_code = s.customer_code
  WHERE c.customer = 'Atliq Exclusive'
)
```

```
SELECT
  Month,
  Fiscal_year,
  ROUND(SUM(sold_quantity * gross_price)) AS Gross_Sales_Amount
FROM cte1
GROUP BY Month, Fiscal_year
ORDER BY Fiscal_year;
```



Month	Fiscal_year	Gross_Sales_Amount
October	2020	5135902
November	2020	7522893
December	2020	4830405
January	2020	4740600
February	2020	3996228
March	2020	378771
April	2020	395035
May	2020	783813
June	2020	1695217
July	2020	2551159

## Sum of gross\_sales\_amount by Year and Month



November's peak in Gross Sales for "Atliq Exclusive" may reflect increased consumer demand during holiday and festival seasons, driving higher purchasing volumes. March's low sales could align with typical fiscal-year-end budgeting constraints, where spending decreases as companies close their books and assess financial performance.

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

```
WITH cte1 AS (
    SELECT
        MONTH(date) AS month_no,
        SUM(sold_quantity) AS Total_Sold_Quantity
    FROM fact_sales_monthly
    WHERE fiscal_year = 2020
    GROUP BY MONTH(date)
    ORDER BY month_no
)
SELECT
CASE
    WHEN month_no IN (9,10,11) THEN 'Q1'
    WHEN month_no IN (12,1,2) THEN 'Q2'
    WHEN month_no IN (3,4,5) THEN 'Q3'
    WHEN month_no IN (6,7,8) THEN 'Q4'
END AS quarter,
```

```
SUM(Total_Sold_Quantity) AS sold_qty
FROM cte1
GROUP BY quarter
ORDER BY sold_qty DESC;
```



quarter	sold_qty
Q1	7005619
Q2	6649642
Q4	5042541
Q3	2075087

## Sum of sold\_quantity by quarters



Quarter 1 of 2020, beginning in September, recorded the highest total sold quantity, likely due to holiday season demand and year-end purchases. This peak reflects consumer spending trends. In contrast, Quarter 3 saw a decline, typical of post-holiday stabilization in demand.

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

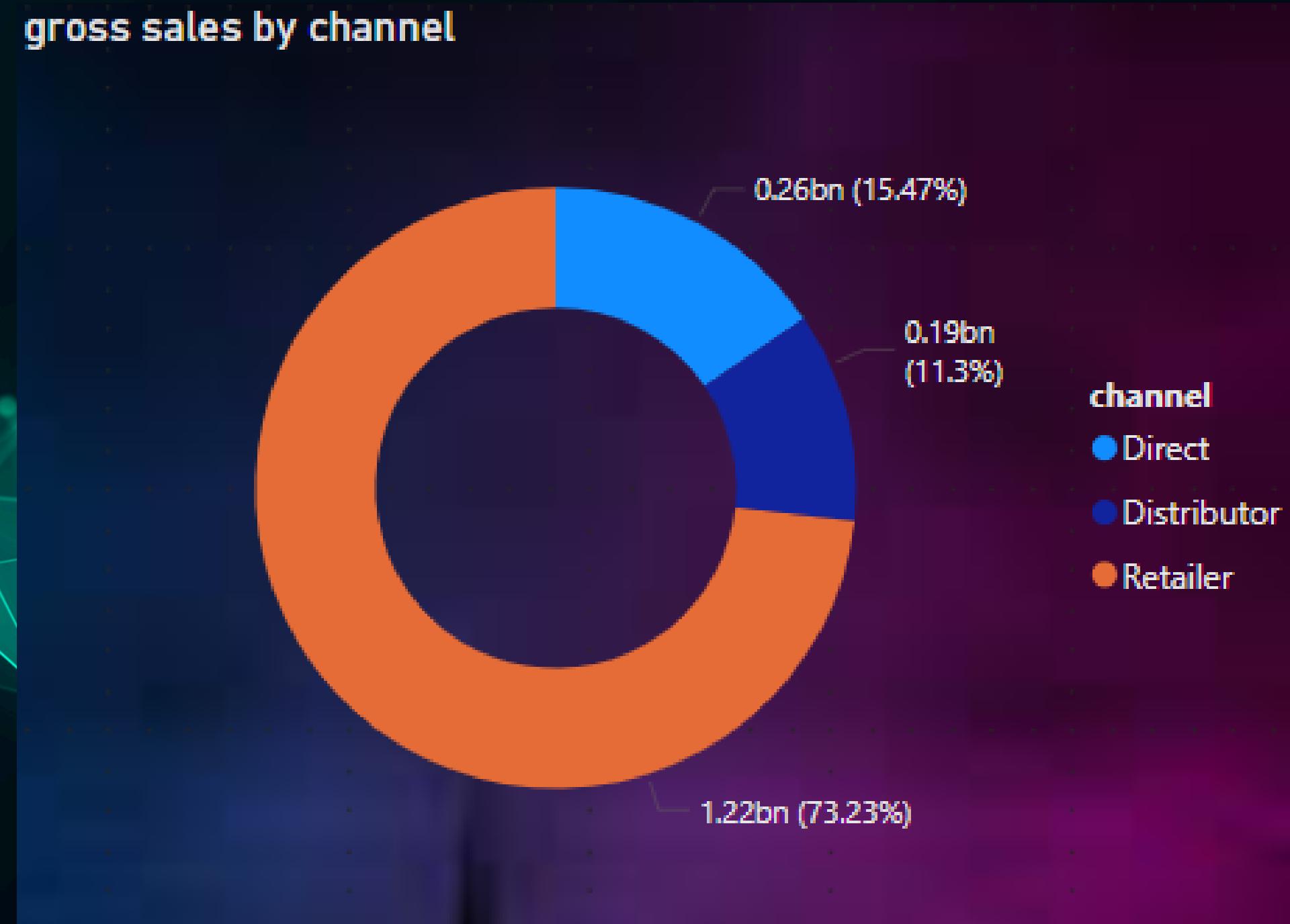
```
WITH cte1 AS (
  SELECT
    c.channel,
    ROUND(SUM(s.sold_quantity * g.gross_price) / 1000000, 2) AS gross_sales_mln
  FROM fact_sales_monthly s
  JOIN fact_gross_price g
    ON s.product_code = g.product_code
    AND s.fiscal_year = g.fiscal_year
  JOIN dim_customer c
    ON c.customer_code = s.customer_code
  WHERE s.fiscal_year = 2021
  GROUP BY c.channel
)
```

```
SELECT
  channel,
  gross_sales_mln,
  ROUND(gross_sales_mln * 100 / SUM(gross_sales_mln) OVER(), 2) AS percentage_contribution
FROM cte1
ORDER BY percentage_contribution DESC;
```



channel	gross_sales_mln	percentage_contribution
Retailer	1219.08	73.23
Direct	257.53	15.47
Distributor	188.03	11.30

### gross sales by channel



the retail channel led with the highest gross sales contribution, indicating strong consumer demand through direct retail outlets. This is followed by direct and distributor channels, suggesting that while retail drives the bulk of sales ,and

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

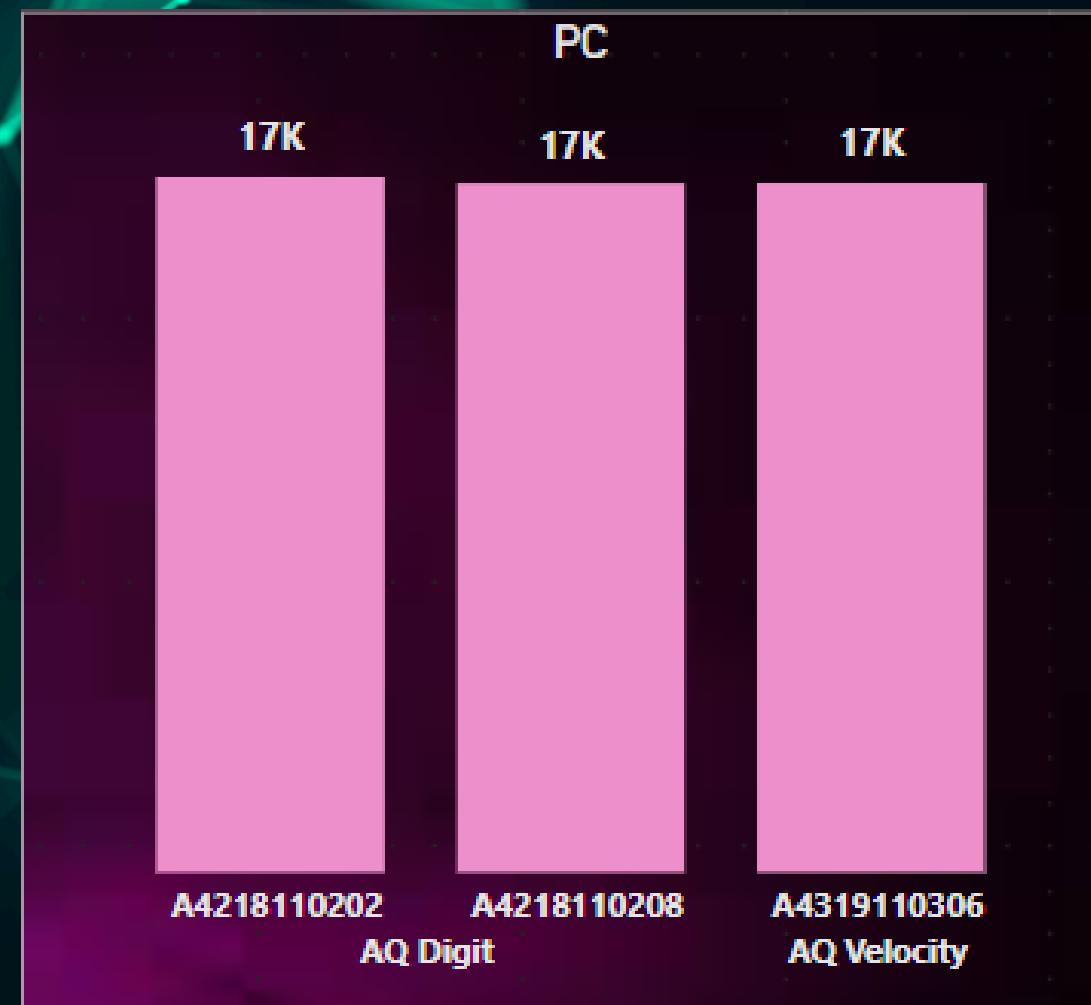
```
WITH cte1 AS (
  SELECT
    p.division,
    p.product_code,
    p.product,
    SUM(s.sold_quantity) AS total_sold_quantity
  FROM dim_product p
  JOIN fact_sales_monthly s
    ON p.product_code = s.product_code
  WHERE s.fiscal_year = 2021
  GROUP BY
    p.division,
    p.product,
    p.product_code
  ORDER BY total_sold_quantity DESC
);
```

```
cte2 AS (
  SELECT
    *
    DENSE_RANK() OVER (PARTITION BY division ORDER BY total_sold_quantity DESC) AS rank_order
  FROM cte1
)

SELECT *
FROM cte2
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



the top-selling products highlighted the strengths of each division: the AQ Pen Drive 2 in 1 led in Network & Storage, while the AQ Gamers MS dominated Peripheral & Accessories, and the AQ Digit excelled in the PC division



Atliq Hardware

# CONCLUSION

Atliq Hardwares has demonstrated significant potential for growth and strategic development within the competitive landscape of the computer hardware industry. The analysis reveals a promising increase in unique products and gross sales, particularly in segments such as notebooks, while highlighting areas for improvement in networking devices. Additionally, insights into customer discount patterns and sales performance across various channels provide a clear roadmap for data-informed decision-making. By focusing on high-performing products and addressing underperforming segments, Atliq Hardwares can enhance its market position and drive sustained growth in the future.

Thank  
you!

