



ATLIQ
HARDWARES

CONSUMER GOODS AD-HOC INSIGHTS

ABOUT COMPANY

AtliQ Hardware, a well-known global consumer electronics brand, specializes in a wide array of hardware products, including PCs, mouse, keyboards, and printers. The company maintains a strong international presence and is dedicated to continuous innovation, providing cutting-edge technology solutions for both home and professional environments.

- AtliQ Hardware is a major computer hardware manufacturer with a presence in India and 26 other countries worldwide.
- The company's product portfolio is organized into three main divisions: Peripherals & Accessories, PC, and Networking & Storage.
- AtliQ Hardware serves a diverse customer base including notable names such as Croma, Best Buy, and Flipkart, across its various markets.

PROBLEM STATEMENT

AtliQ Hardwares is one of the leading computer hardware manufacturers in India operating globally. However, their leadership noticed a gap- they were not getting timely and sufficient insights to make quick and smart business decisions.

To address this, they created 10 ad-hoc business requests. My task was to answer each request using SQL and present the results visually for the top level management.

AD-HOC REQUEST 1: Provide the list of markets in which customer "Atliq Exclusive" operates its business in the APAC region.

Query

AD-HOC REQUEST 1

AD-HOC REQUEST 2

AD-HOC REQUEST 3

AD-HOC REQUEST 4

AD-HOC REQUEST 5

AD-HOC REQUEST 6

AD-HOC REQUEST 7

AD-HOC REQUEST 8

AD-HOC REQUEST 9

AD-HOC REQUEST 10

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

Insights

AtliQ Exclusive operates in **8 APAC markets**:
India, Australia, Bangladesh, Indonesia, Japan, New Zealand, Philippines, and South Korea, spanning both mature and emerging economies for diversified regional growth.

Markets

Australia

Bangladesh

India

Indonesia

Japan

market

Newzealand

Philiphines

South Korea

AD-HOC REQUEST 2 : Provide the list of markets in which customer "Atliq Exclusive" operates its business in the APAC region.

AD-HOC REQUEST 1

AD-HOC REQUEST 2

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AD-HOC REQUEST 6

AD-HOC REQUEST 7

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AD-HOC REQUEST 9

AD-HOC REQUEST 10

Query

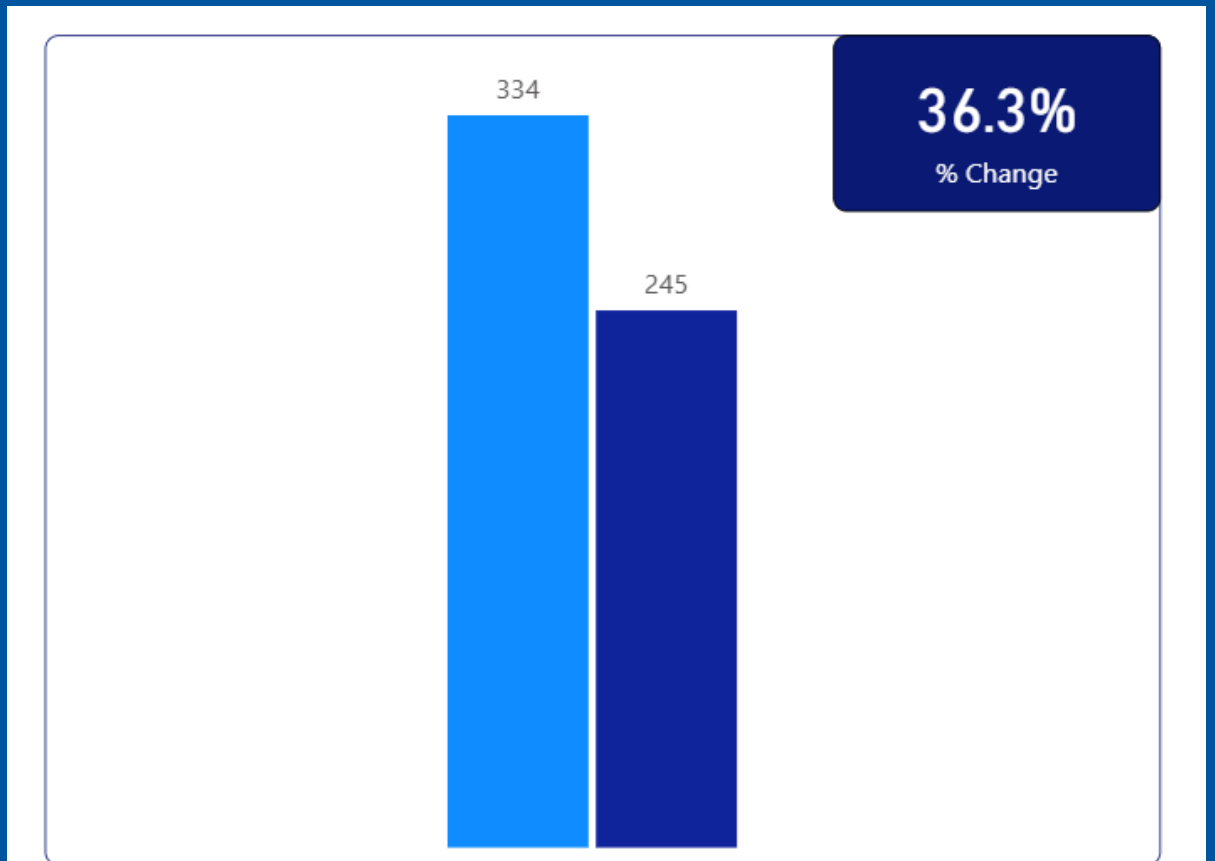
```
WITH cte as(
SELECT
    count(DISTINCT product_code) as unique_products_2020
FROM fact_sales_monthly
WHERE fiscal_year = 2020),

cte1 as (
SELECT
    count(DISTINCT product_code) as unique_products_2021
FROM fact_sales_monthly
WHERE fiscal_year = 2021)

SELECT
    cte.unique_products_2020,
    cte1.unique_products_2021,
    ROUND(
        (( cte1.unique_products_2021 - cte.unique_products_2020)
        *100/ cte.unique_products_2020),2)
        as percentage_chg
FROM cte, cte1
ORDER BY percentage_chg DESC;
```

Insights

AtliQ Hardwares numbers of products increased from **245** in **Fiscal Year 2020** to **334** in **Fiscal Year 2021** representing a **36.33%** growth in product variety.



AD-HOC REQUEST 3 : Provide a report with all the unique product counts for each segment and sort them in descending order of product counts.

AD-HOC REQUEST 1

AD-HOC REQUEST 2

AD-HOC REQUEST 3

AD-HOC REQUEST 4

AD-HOC REQUEST 5

AD-HOC REQUEST 6

AD-HOC REQUEST 7

AD-HOC REQUEST 8

AD-HOC REQUEST 9

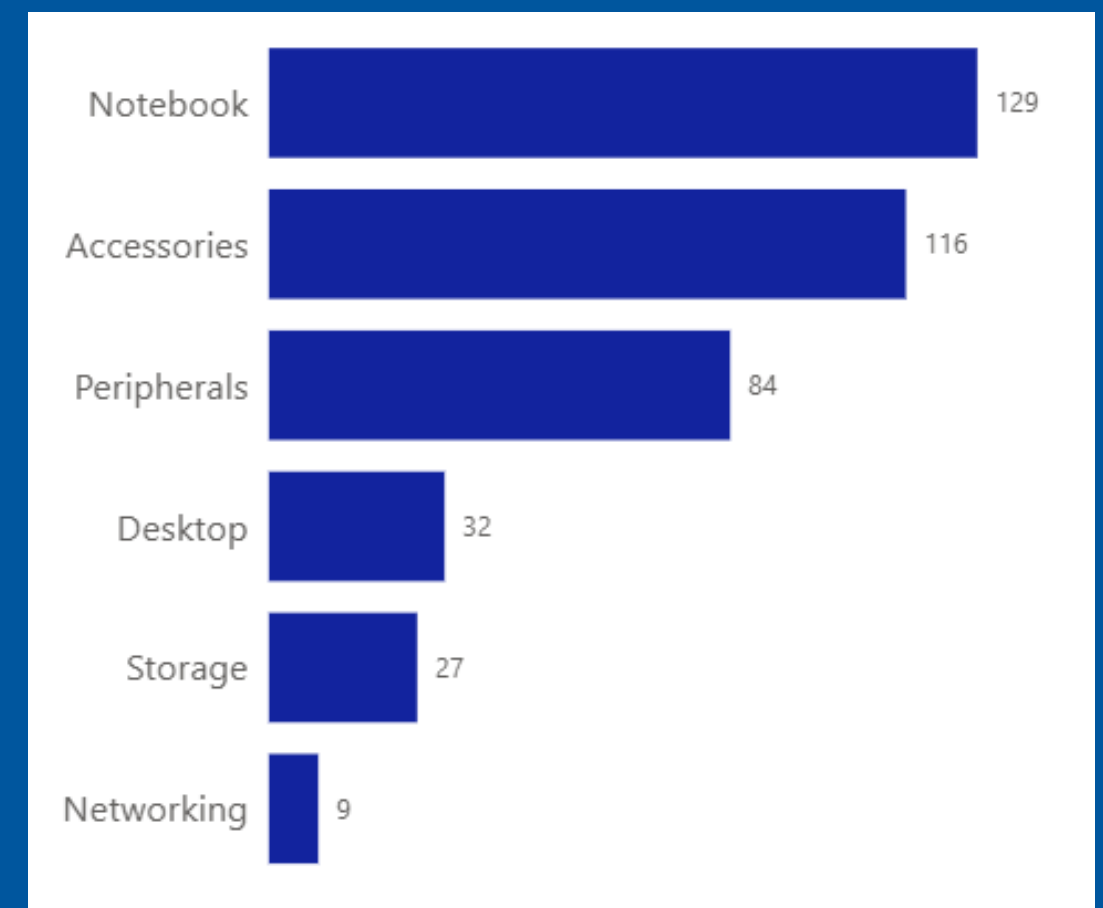
AD-HOC REQUEST 10

Query

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

Insights

AtliQ's portfolio is dominated by **Notebooks (129)** and **Accessories (116)**, while **Networking (9)** and **Storage (27)** segments remain underdeveloped, indicating potential expansion opportunities.



AD-HOC REQUEST 4 : Which segment had the most increase in unique products in 2021 vs 2020?

AD-HOC REQUEST 1

AD-HOC REQUEST 2

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AD-HOC REQUEST 5

AD-HOC REQUEST 6

AD-HOC REQUEST 7

AD-HOC REQUEST 8

AD-HOC REQUEST 9

AD-HOC REQUEST 10

Query

```
WITH cte as (  
  SELECT  
    p.segment, s.fiscal_year,  
    count(distinct p.product_code) as product_count_2020  
  FROM fact_sales_monthly s  
  JOIN dim_product p  
  ON s.product_code = p.product_code  
  WHERE s.fiscal_year = 2020  
  GROUP BY p.segment, s.fiscal_year),  
  
  cte1 as (  
  SELECT  
    p.segment, s.fiscal_year,  
    count(distinct p.product_code) as product_count_2021  
  FROM fact_sales_monthly s  
  JOIN dim_product p  
  ON s.product_code = p.product_code  
  WHERE s.fiscal_year = 2021  
  GROUP BY p.segment, s.fiscal_year)  
  
  SELECT  
    cte1.segment,  
    cte.product_count_2020,  
    cte1.product_count_2021,  
    (cte1.product_count_2021 - cte.product_count_2020) as difference  
  FROM cte  
  JOIN cte1  
  ON cte.segment = cte1.segment  
  ORDER BY difference;
```

Insights

Accessories led with the highest increase of **34 products (49% growth)**, indicating AtliQ's strategic focus on expanding complementary offerings to drive cross-selling and customer retention.

Segment	2020	2021	Change
Notebook	92	108	16
Accessories	69	103	34
Peripherals	59	75	16
Storage	12	17	5
Desktop	7	22	15
Networking	6	9	3

AD-HOC REQUEST 5 : Get the products that have the highest and lowest manufacturing costs.

AD-HOC REQUEST 1

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AD-HOC REQUEST 9

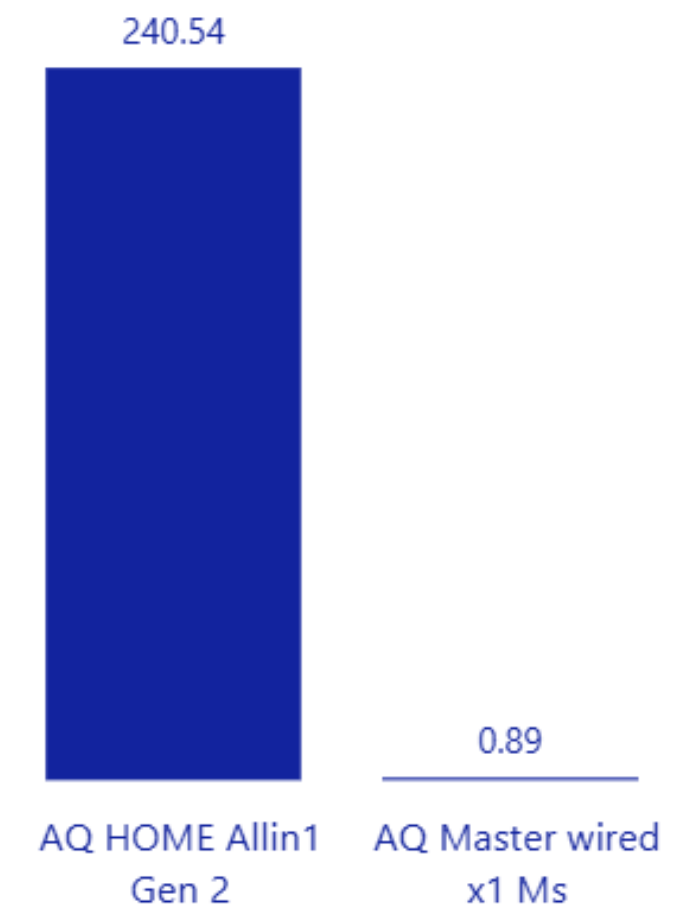
AD-HOC REQUEST 10

Query

```
SELECT
    p.product_code, p.product,
    m.manufacturing_cost
FROM dim_product p
JOIN fact_manufacturing_cost m
ON p.product_code = m.product_code
WHERE m.manufacturing_cost =
(SELECT max(m.manufacturing_cost)
FROM fact_manufacturing_cost m
JOIN dim_product p
ON p.product_code = m.product_code)
UNION
SELECT
    p.product_code, p.product,
    m.manufacturing_cost
FROM dim_product p
JOIN fact_manufacturing_cost m
ON p.product_code = m.product_code
WHERE m.manufacturing_cost =
(SELECT min(m.manufacturing_cost)
FROM fact_manufacturing_cost m
JOIN dim_product p
ON p.product_code = m.product_code);
```

Insights

AQ HOME Allin1 Gen 2 (\$240.54) and **AQ Master wired x1 Ms (\$0.89)** represent AtliQ's cost extremes with a **270x** difference, reflecting a dual strategy targeting both premium and budget market segments.



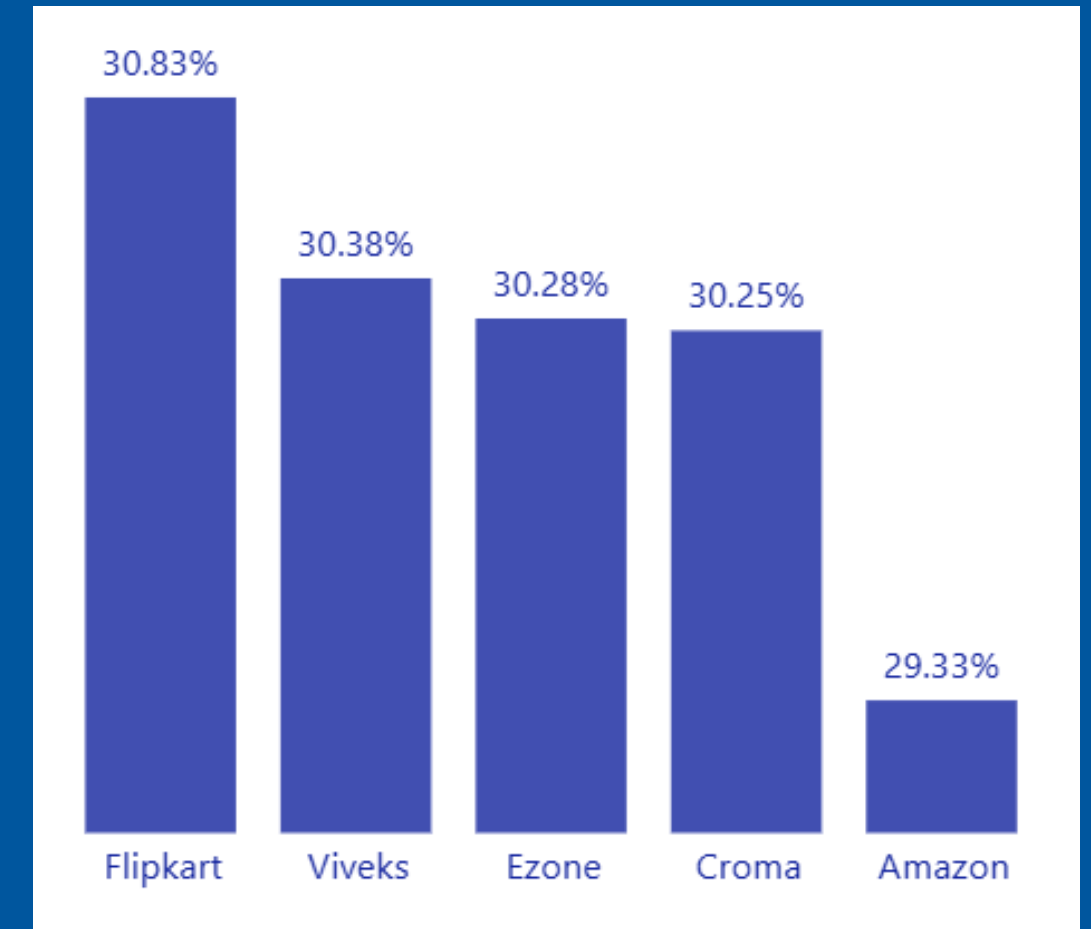
Generate a report which contains the top 5 customers who
AD-HOC REQUEST 6 : received an average high pre_invoice_discount_pct for the fiscal year 2021 and in the Indian market.

Query

```
SELECT
    c.customer_code, c.customer,
    round(avg(pre.pre_invoice_discount_pct),2)as average_discount_percentage
FROM dim_customer c
JOIN fact_pre_invoice_deductions pre
ON c.customer_code = pre.customer_code
WHERE c.market = "India" and pre.fiscal_year = 2021
GROUP BY c.customer_code, c.customer
ORDER BY average_discount_percentage DESC
LIMIT 5;
```

Insights

Flipkart leads with **30.83%** discount, followed by **Viveks**, **Ezone**, and **Croma (30.25-30.38%)**, while **Amazon** receives the lowest at **29.33%**, indicating varied partnership agreements or negotiating power differences.



AD-HOC REQUEST 1

AD-HOC REQUEST 2

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AD-HOC REQUEST 10

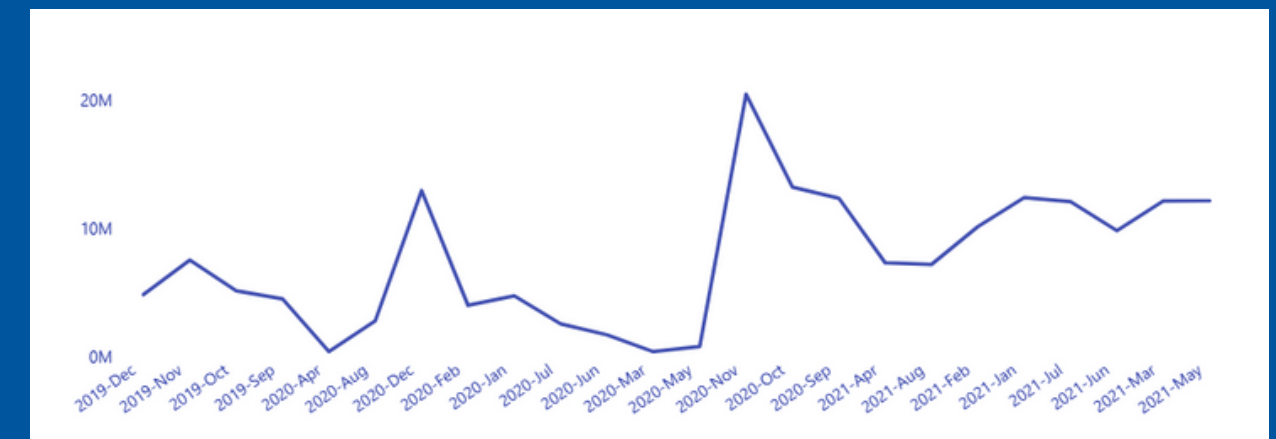
AD-HOC REQUEST 7 : Get the complete report of the Gross sales amount for the customer “Atliq Exclusive” for each month .

Query

```
SELECT
    monthname(s.date) as month,
    year(s.date) as year,
    round(sum(g.gross_price * s.sold_quantity),2) as gross_sales_amount
FROM fact_sales_monthly s
JOIN dim_customer c ON s.customer_code = c.customer_code
JOIN fact_gross_price g
ON
    s.product_code = g.product_code
and s.fiscal_year = g.fiscal_year
WHERE c.customer = "Atliq Exclusive"
GROUP BY month, year
ORDER BY year;
```

Insights

AtliQ Exclusive peaked at **\$204.65M** in **November 2020**, but **2021** shows a **declining trend** from **\$123.99M** (January) to **\$71.79M** (August), indicating potential market challenges or increased competition requiring strategic intervention.



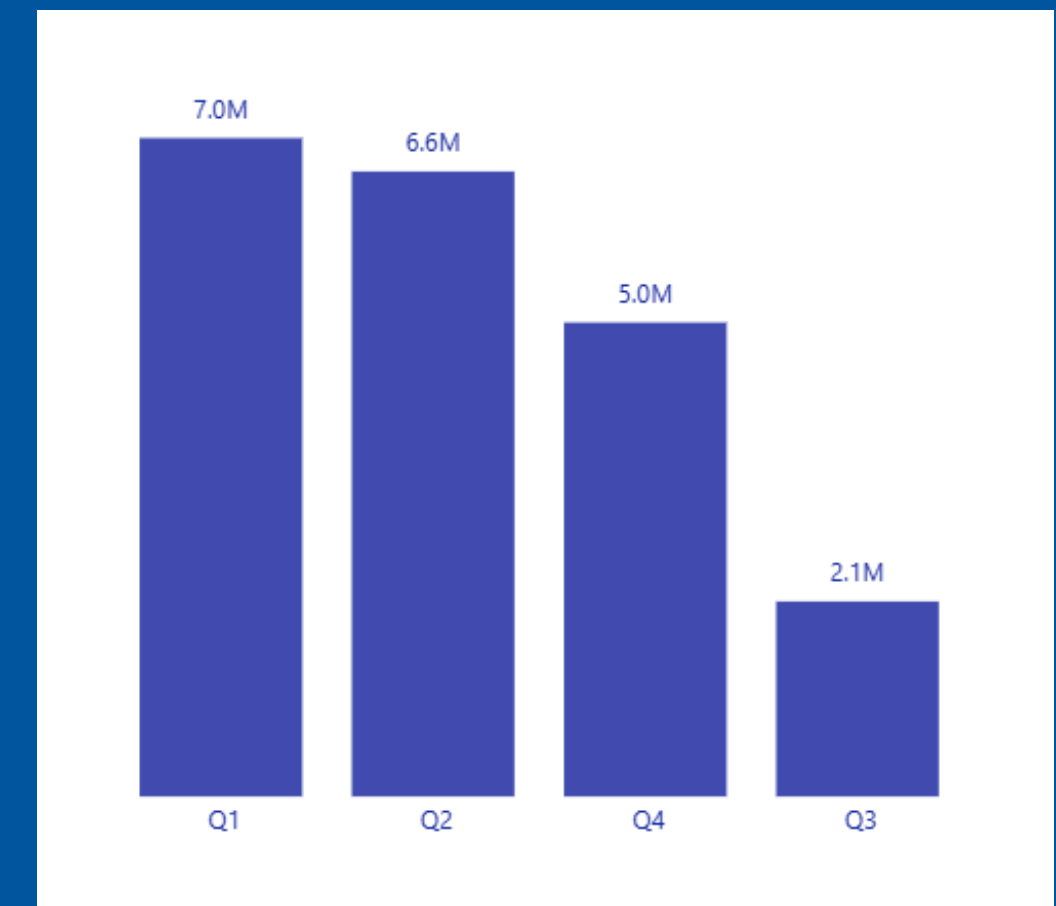
AD-HOC REQUEST 8 : In which quarter of 2020, got the maximum total_sold_quantity?

Query

```
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 quarters,
  sum(sold_quantity) as total_sold_quantity
FROM fact_sales_monthly
WHERE fiscal_year = 2020
GROUP BY quarters
ORDER BY total_sold_quantity DESC;
```

Insights

Q1 2020 led with **7.0M units**, but sales **declined** sharply by **70%** to **Q3 (2.1M)**, likely due to COVID-19 disruptions or seasonal demand patterns affecting mid-year operations.



AD-HOC REQUEST 1

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AD-HOC REQUEST 9 : Which channel helped to bring more gross sales in the fiscal year 2021 and the percentage of contribution?

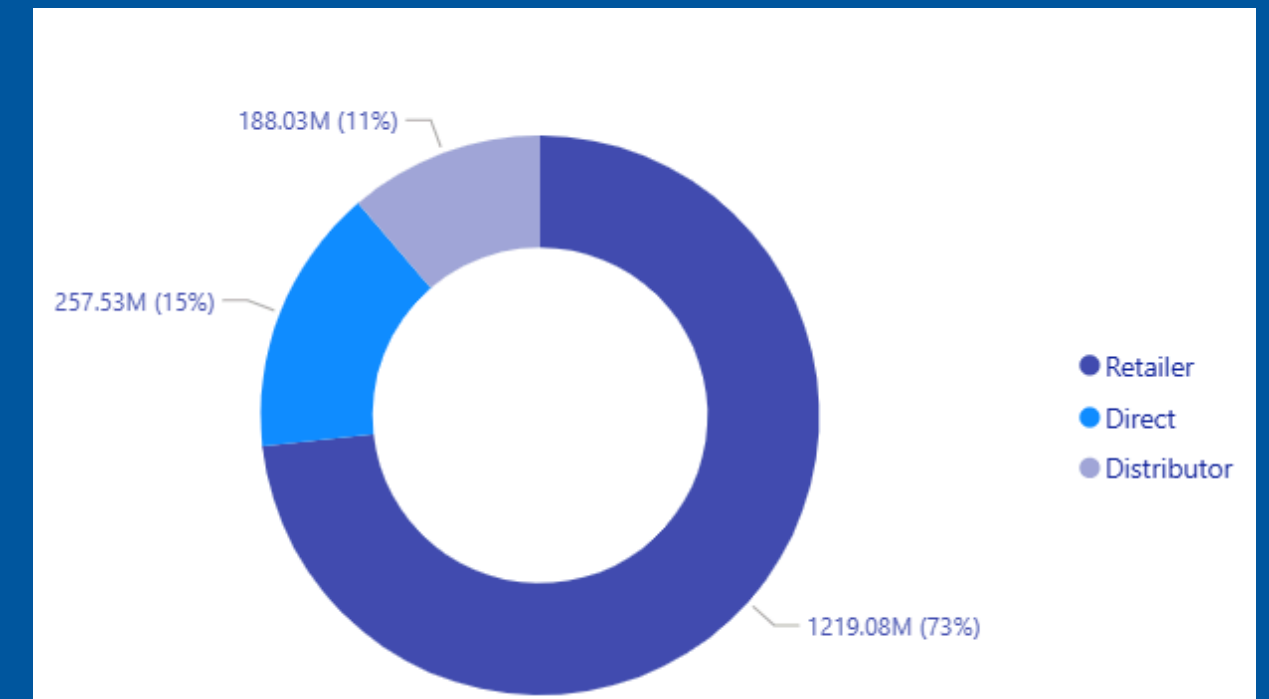
Query

```
WITH cte as
(SELECT
  c.channel,
  round(sum(g.gross_price * s.sold_quantity)/1000000,2) as gross_sales_mln
FROM dim_customer c
JOIN fact_sales_monthly s ON c.customer_code = s.customer_code
JOIN fact_gross_price g
  ON s.product_code = g.product_code and
  s.fiscal_year = g.fiscal_year
WHERE s.fiscal_year = 2021
GROUP BY c.channel)

SELECT
  channel,
  concat(gross_sales_mln,'M') as gross_sales_mln,
  round((gross_sales_mln/sum(gross_sales_mln) over ())*100,2) as percentage
FROM cte
ORDER BY gross_sales_mln;
```

Insights

Retailer dominates with **73.23% (\$1,219M)**, while **Direct** and **Distributor** contribute only **24.77%** combined, indicating heavy channel concentration and potential diversification opportunities.



AD-HOC REQUEST 1

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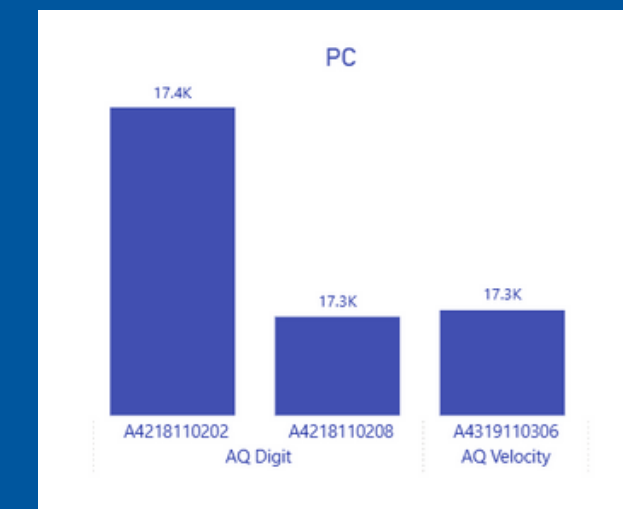
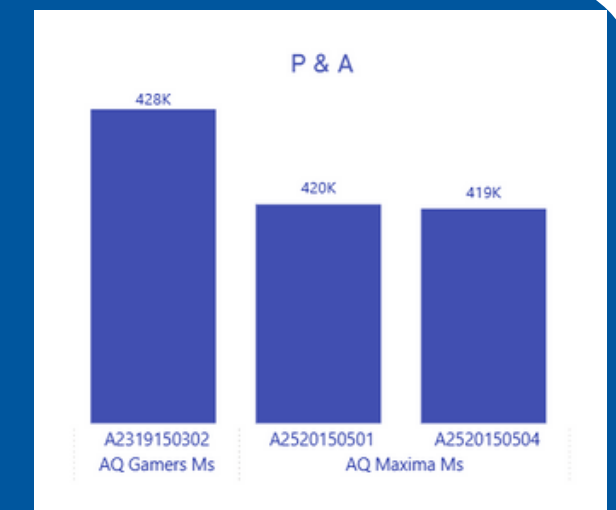
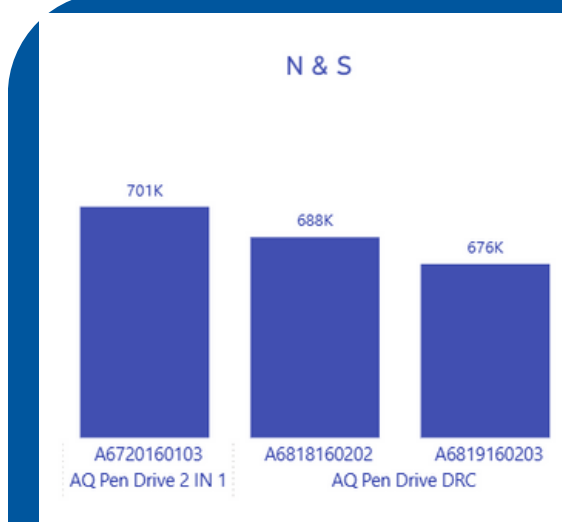
AD-HOC REQUEST 10 : Get the Top 3 products in each division that have a high total_sold_quantity in the fiscal_year 2021?

Query

```
WITH cte as (  
  SELECT  
    p.division, p.product_code, p.product,  
    sum(s.sold_quantity) as total_sold_quantity,  
    dense_rank() over (partition by p.division order by sum(s.sold_quantity) DESC) as rank_order  
  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_code, p.product)  
  
SELECT  
  division, product_code, product, total_sold_quantity  
FROM cte  
WHERE rank_order <= 3  
ORDER BY total_sold_quantity DESC;
```

Insights

Retailer dominates with **73.23% (\$1,219M)**, while **Direct** and **Distributor** contribute only **24.77%** combined, indicating heavy channel concentration and potential diversification opportunities.



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KEY RECOMMENDATIONS

1. **Diversify Sales Channels Urgently** - Reduce retailer dependency from 73% to 50-55% by aggressively building Direct-to-Consumer (target 25-30%) and B2B distributor channels to mitigate concentration risk.
2. **Address 2021 Revenue Decline** - Immediately investigate the 42% sales drop (Jan-Aug 2021) and implement recovery strategies including market analysis, competitive positioning, and customer retention programs.
3. **Expand Networking & Storage Segments** - Fast-track product development in underserved categories (currently 9 and 27 products) to capture enterprise opportunities and reduce overdependence on Notebooks/Accessories.
4. **Implement Real-Time Analytics Dashboard** - Deploy automated business intelligence tools to provide leadership with instant insights for faster, data-driven decision-making—solving the core problem statement.
5. **Optimize Seasonal & Q3 Performance** - Develop robust demand forecasting and inventory strategies to prevent 70% quarterly drops, ensuring consistent sales throughout the year.
6. **Strengthen Direct Channel & Amazon Partnership** - Build e-commerce capabilities while renegotiating Amazon's lower discount terms (29.33%) to improve margins and market reach simultaneously.

CONCLUSION

AtliQ Hardwares has demonstrated strong product expansion (**36% growth**) and geographic diversification across **8 APAC markets**, but faces critical challenges including declining **2021 revenues (42% drop)**, extreme channel concentration (**73% retailer dependency**), and underdeveloped product segments (**Networking, Storage**). The analysis reveals both operational vulnerabilities—particularly the **70% Q3 sales** collapse and inconsistent discount strategies—and significant growth opportunities in **Direct channels, enterprise segments, and emerging markets**. By implementing real-time analytics infrastructure, diversifying distribution channels, and strategically expanding underserved product categories, **AtliQ** can transform data insights into actionable strategies, enabling the leadership to make faster, smarter decisions and achieve sustainable, balanced growth across markets and channels.