



# CONSUMER GOODS Ad-hoc Analysis





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# COMPANY DETAILS:

Atliq Hardware (imaginary company) is one of the leading computer hardware producers in India and well expanded in other countries too.

However, the management noticed that they do not get enough insights to make quick and smart data-informed decisions. They want to expand their data analytics team by adding several junior data analysts.

Tony Sharma, their data analytics director wanted to hire someone who is good at both tech and soft skills. Hence, he decided to conduct a SQL challenge which will help him understand both the skills.

Atliq hardware has spread across these regions around the world:


- APAC ●
- EU ●
- LATAM ●
- NA ●







# OBJECTIVES

- Need to work on ad hoc requests for which the business needs insights.
  - As the target audience is top-level management - we need to create a presentation to show the insights.
- 



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



#### Market

Australia

Bangladesh

India

Indonesia

Japan

Newzealand

Philiphines

South Korea



- What is the percentage of unique product increase in 2021 vs. 2020? The final output contains these fields:

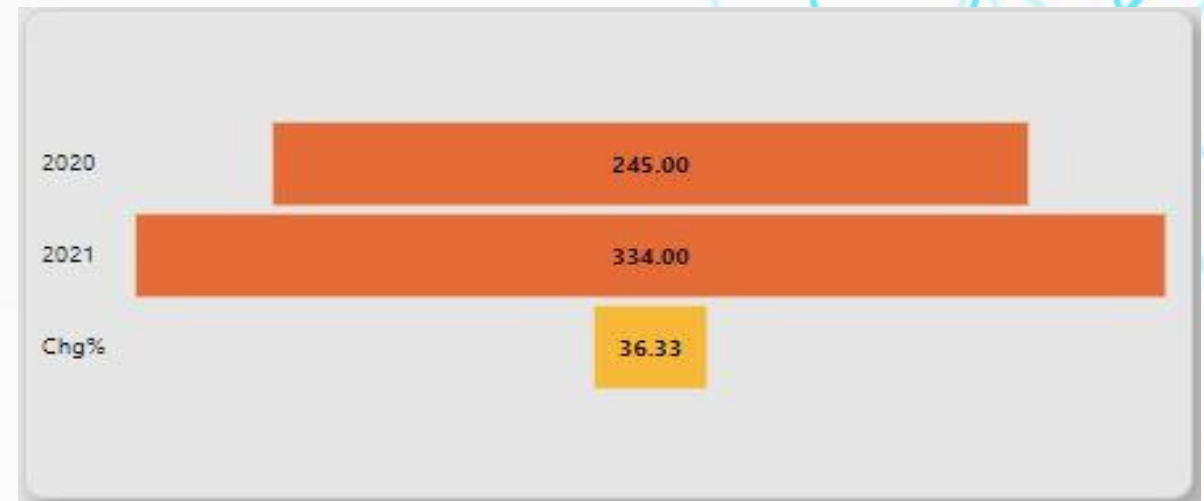
*unique\_products\_2020*  
*unique\_products\_2021*  
*percentage\_chg*

### **Insights:**

- Atliq Hardware achieved a notable 36.33% increase in unique products from 2020 to 2021, reflecting their successful expansion strategy and solidifying their market presence.



Unique Products_2020	Unique Products_2021	Percentage_chg
245	334	36.33





- 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:

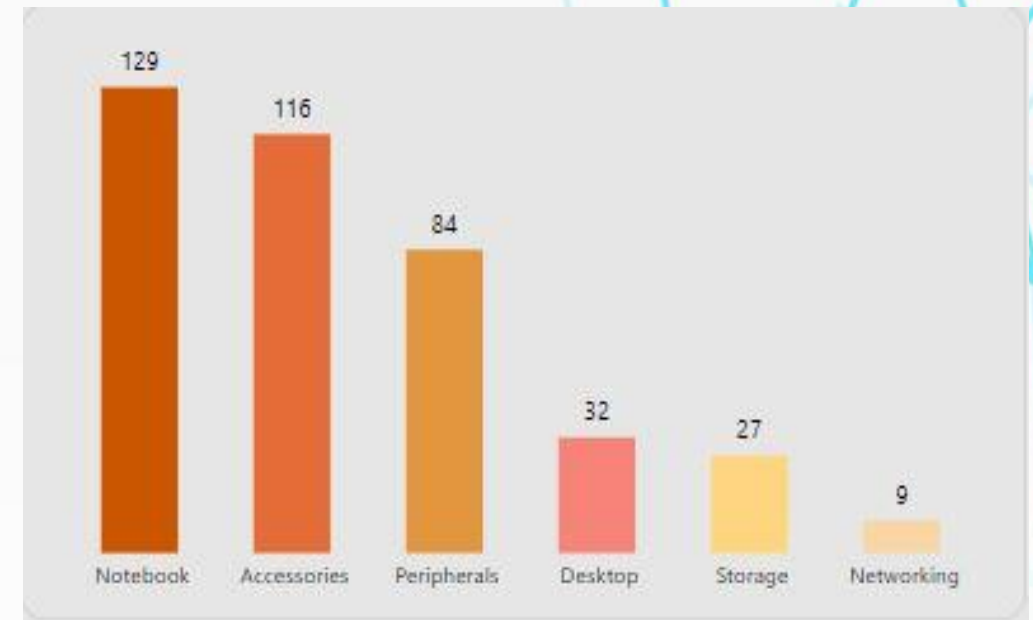
*Segment,  
products\_count*



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

### Insights:

- Notebooks (**129**) and Accessories (**116**) and Peripherals(84) lead with the highest counts, collectively making up 76.3% of the total product variety.
- Desktops (**32**), Storage (**27**), and Networking (**9**) show lower product counts, suggesting areas for potential growth and diversification
- Atliq Hardware excels in Notebooks and Accessories, which dominate their product variety. To strengthen their market presence, focusing on increasing product offerings in Desktops, Storage, and Networking could be beneficial. This balanced expansion strategy will help broaden the customer base and drive overall growth







- Which segment had the most increase in unique products in 2021 vs 2020? The final output contains these fields:

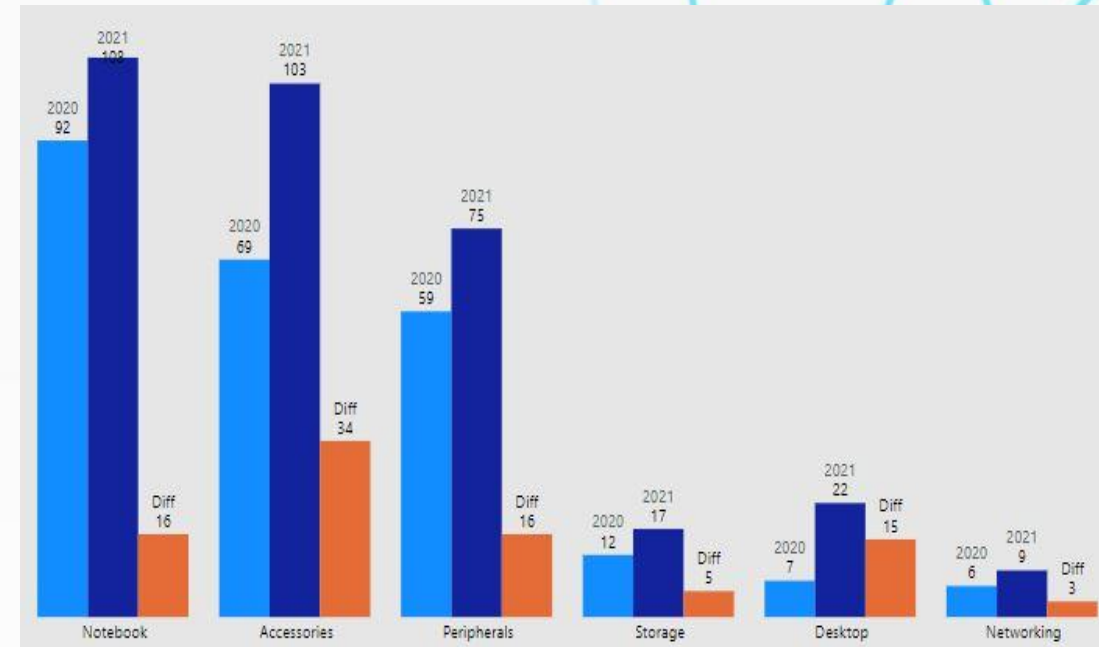
*Segment,  
product\_count\_2020  
product\_count\_2021  
difference*



segment	Prod_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

### Insights:

- We can see **Accessories** segment experienced the highest increase in unique products, growing by **34** units from **69** in 2020 to 103 in 2021
- Followed by **Desktop** segment with an additional **15** unique products in 2021 compared to 2020 (**rising from 7 to 22**), followed by Peripherals and Notebook segments each added **16** unique products.  
*This significant growth indicates diversification in these product categories.  
Also shows increased demand in these categories*
- Both **Storage & Networking** segment had a moderate increase adding **5 & 3** unique products respectively.  
*Although the increase is modest, it indicates ongoing development in networking technologies.*



- Get the products that have the highest and lowest manufacturing costs. The final output should contain these fields,:

*product\_code,*  
*product,*  
*manufacturing\_cost*

### Insights:

We can see here,

- AQ HOME Allin1 Gen 2(Personal Desktop) has the **highest** manufacturing cost
- AQ Master wired x1 Ms(Mouse) has the **lowest** manufacturing cost



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



**Highest Manufacturing cost**  
**AQ Home Allin1 Gen 2**  
Personal Desktop



**Lowest Manufacturing cost**  
**AQ Master wired x1 Ms**  
Mouse



- 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*

*avg\_discount\_percentage*



customer_code	customer	avg_discount_pct
90002009	Flipkart	30.80%
90002006	Viveks	30.40%
90002002	Croma	30.30%
90002003	Ezone	30.30%
90002016	Amazon	29.30%

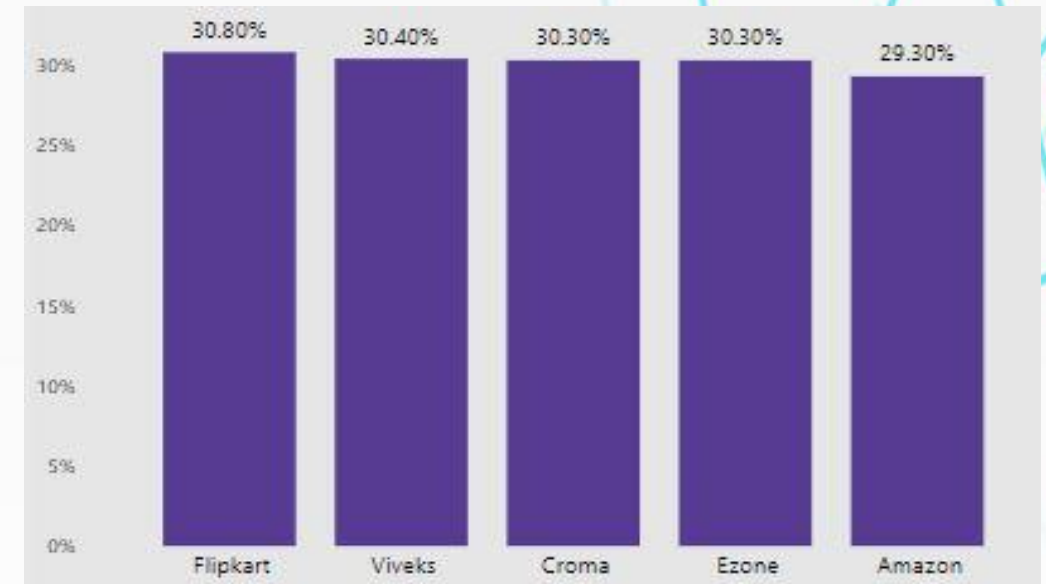
### Insights:

In the Top 5 customers for pre invoice discounts, we can see here that,

**Flipkart** with an average discount percentage of **30.80%** is leading the list, followed by Viveks with **30.40%** of average discount.

Closely behind are **Croma & Ezone** with an equal discount of **30.30%**. Then the least average discount is for **Amazon 29.30%** Overall **Total Average Discount** (All 5 Customers): **30.22%**

**Pre-invoice discounts** are essential for building strong business relationships and staying competitive. Retailers securing higher discounts can offer attractive prices, driving sales and enhancing their market position in a competitive environment.





- 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



Months	fiscal_year	gross_sales
September	2020	9092670.34
October	2020	10378637.60
November	2020	15231894.97
December	2020	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	5151815.40
August	2020	5638281.83
September	2021	19530271.30
October	2021	21016218.21
November	2021	32247289.79
December	2021	20409063.18
January	2021	19570701.71
February	2021	15986603.89
March	2021	19149624.92

## Insights:

### High-Performing Months:

November 2021: This month has the highest sales with 32.3M

### Low-Performing Months:

March 2020: Lowest sales month with 0.8M

### Performance Analysis:

November 2021 consistently shows high sales followed by October, likely due to holiday season sales boosts

March and May 2021 historically show lower sales, possibly due to the pandemic & all the business were down.

In the future, For the low-performing months implementing targeted promotions, introducing new products & pushing more on marketing or may be by offering special promotions can help the sales distribution throughout.





- 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*

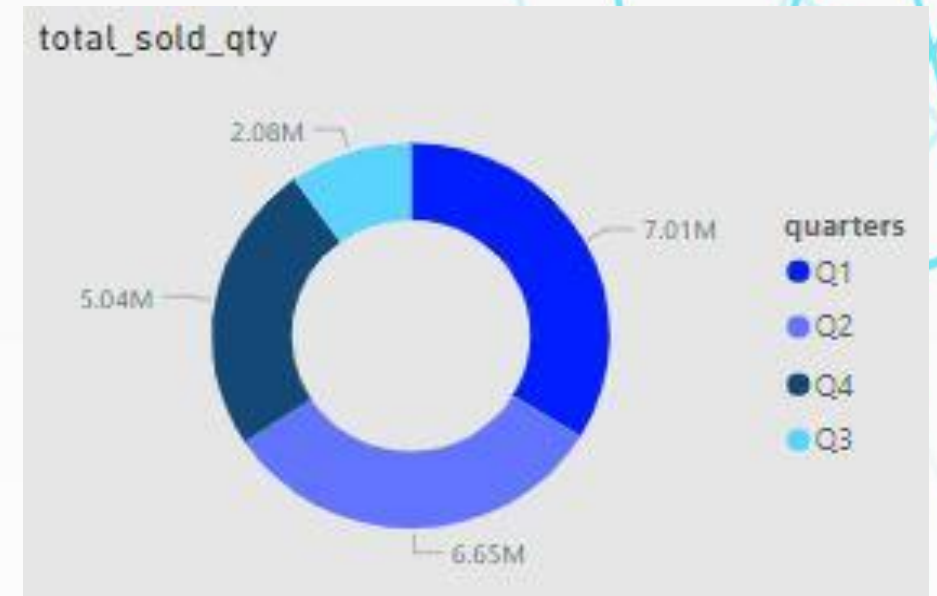


quarters	total_sold_qty
Q1	7005619
Q2	6649642
Q3	2075087
Q4	5042541

### Insights:

Atliq Hardware demonstrated a strong start in **Q1(September - November)** of FY 2020 with **7.01** million units sold, maintaining robust sales into **Q2(December - February)** with **6.6** million units.

However, **Q3(March - May)** saw a notable decline to **2.08** million units, potentially impacted by seasonal trends or market conditions. The company rebounded in **Q4(June - August)**, achieving **5.04** million units sold, indicating resilience and strategic recovery efforts.







- 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*

### Insights:

Retailer sales constitute the majority of the company's revenue, accounting for **73.22%** of total sales.

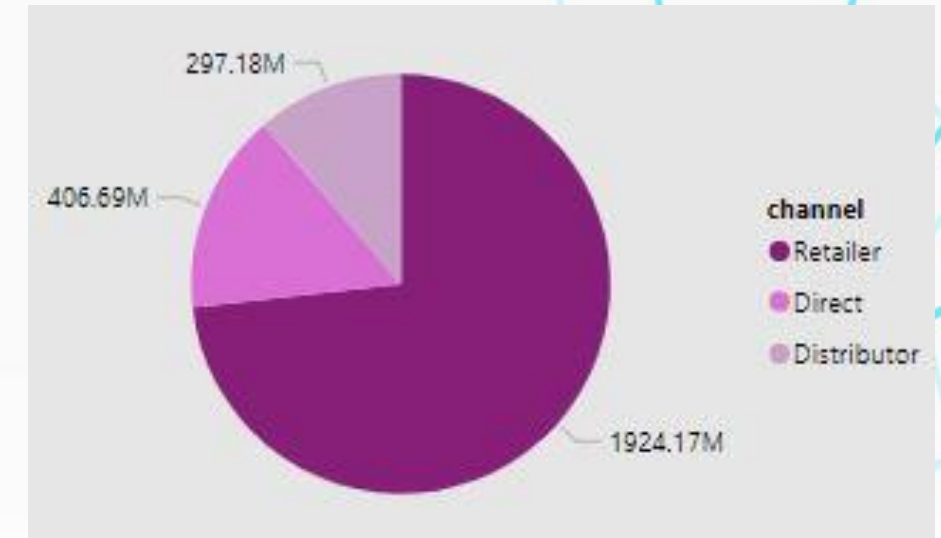
Direct sales, while lower in percentage (**15.47%**), still represent a substantial portion of the revenue stream.

Distributors contribute **11.31%** of the total sales, indicating a moderate but essential role in reaching markets efficiently

In the future, Atliq Hardware should continue to focus on and expand its retailer partnerships due to their dominant contribution to overall sales. Simultaneously, efforts can be directed towards optimizing direct sales channels to capture a greater share of revenue directly from consumers. Maintaining and possibly enhancing distributor relationships could also contribute to incremental sales growth.

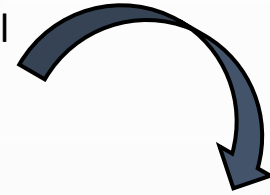


channel	gross_sales_mln	percentage
Retailer	1,924.17M	73.22
Direct	406.69M	15.47
Distributor	297.18M	11.31





- 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_qty	rank_order
N & S	A6720160103	AQ Pen Drive 2 IN 1	701K	1
N & S	A6818160202	AQ Pen Drive DRC	688K	2
N & S	A6819160203	AQ Pen Drive DRC	676K	3
P & A	A2319150302	AQ Gamers Ms	428K	1
P & A	A2520150501	AQ Maxima Ms	420K	2
P & A	A2520150504	AQ Maxima Ms	419K	3
PC	A4218110202	AQ Digit	17K	1
PC	A4319110306	AQ Velocity	17K	2
PC	A4218110208	AQ Digit	17K	3



### Top 3 Products under N & S division



**AQ Pen Drive 2 IN 1(A6720160103):** This product leads the sales with a total sold quantity of **701K units**.

**AQ Pen Drive DRC(A6818160202):** Following closely, this product achieved a total sold quantity of **688K units**.

**AQ Pen Drive DRC(P)(A6819160203):** This product recorded the lowest sales among the top three with **676K units**.

### Top 3 Products under P & A division



**AQ Gamers Ms (A2319150302):** This product has the highest sales with a total sold quantity of **428K units**.

**AQ Maxima Ms (A2520150501):** The second highest-selling product, with a total sold quantity of **420K units**.

**AQ Maxima Ms (P) A2520150504:** This product recorded a total sold quantity of **419K units**, making it the third in sales volume.

### Top 3 Products under PC division



**AQ Digit (A4218110202)**  
**AQ Velocity (A4319110306)**  
**AQ Digit (A4218110208)**

Under this division all the 3 products have identical sold quantity **17k units**, highlighting a uniform performance across these products

The identical sales quantities indicate a well-balanced product line, with no single product outperforming the others.

# THANK YOU

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<https://github.com/Abhina056/Ad-Hoc-Analysis---Consumer-Goods.git>