



Consumer Goods: Ad_Hoc insights

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Project overview



Company Overview

AtliQ Hardware is a top name in computer hardware, not just in India, but all over! They're famous for making really good stuff, and now they're getting even better. How? By using data to make super smart decisions. Think faster, smarter, and even more awesome products!

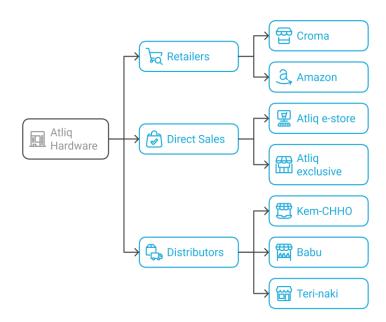


Business Overview

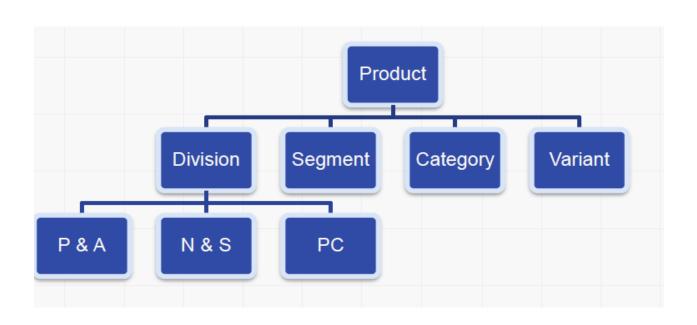
Atliq Hardware Distribution Process

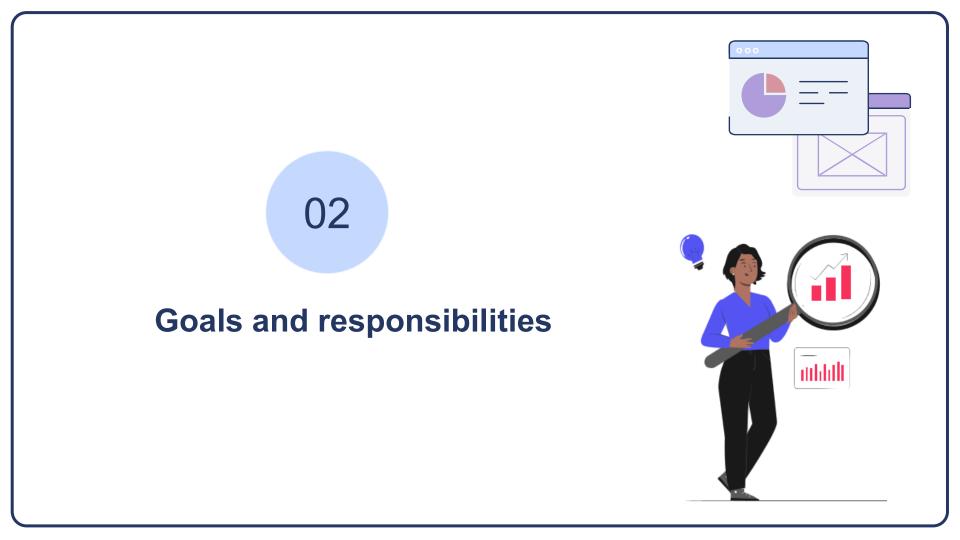


AtliQ Hardware's channel



Product Classification





Goal:

This project aims to provide clear answers to 10 key business questions from ad-hoc requests, giving executive management the information they need for better decision-making.

Role:

As Junior Data Analyst, I'm responsible for analysing business data using SQL and presenting actionable insights to support executive decision-making.

Tasks:

- Write SQL queries to address the 10 business requests.
- Analyse the data and identify key insights.
- Create a clear and concise presentation of the insights for executive management.









Dataset Description

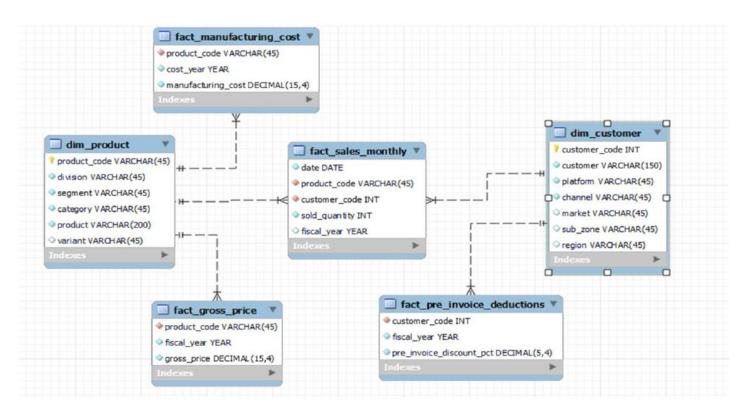


Details of the Atliq Hardware Database Tables

dim_customer	contains customer-related data.
dim_product	contains product-related data.
fact_gross_price	contains gross price information for each product.
fact_manufacturing_cost	contains the cost incurred in the production of each product.
fact_pre_invoice_deductions	These can be used in the template, and their size and color can be edited.
fact_sales_monthly	contains monthly sales data for each product.

<u>Note</u>: Data are available for **Fiscal Year 2020** and **2021**. At **AtliQ Hardware** fiscal year starts from **September** month of calendar year.

Data Model





Analysis and Discoveries



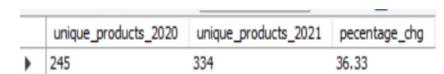
Request 1: Provide the list of markets in which customer Atliq Exclusive operates its business in the APAC region.

	market
•	India
	Indonesia
	Japan
	Philiphines
	South Korea
	Australia
	Newzealand
	Bangladesh

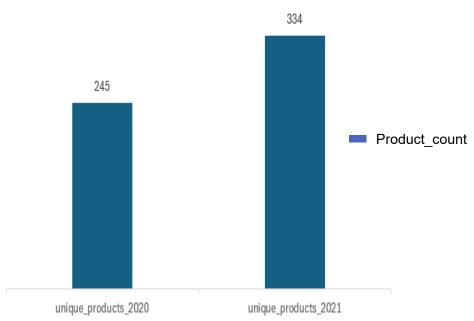
- **Broad APAC Reach:** Atliq Exclusive is present in key markets like India, Japan, South Korea, and more, covering a wide APAC region.
- **Growth in Emerging Markets:** There's strong potential for expansion in fast-growing markets like India and Indonesia.
- Customized Local Strategies: Atliq Exclusive can tailor its approach to each market for better customer connection and success.



Request 2: What is the percentage of unique product increase in 2021 vs. 2020?



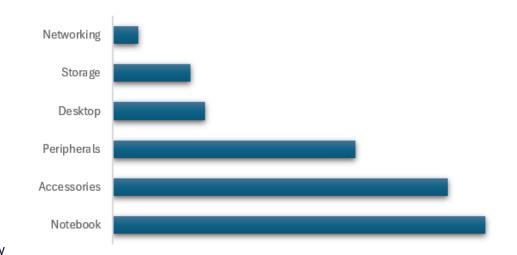
- From 2020 to 2021, the company grew its product range by 36.33%, increasing from 245 to 334 products.
- This shows they're actively adding new items, which suggests the business is growing and diversifying.



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

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

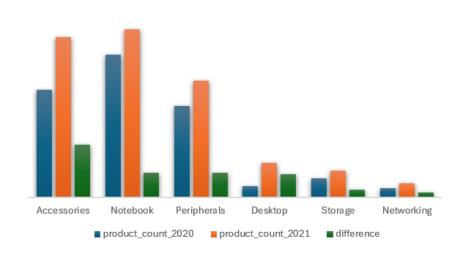
- Notebooks are leading with 129 sales, followed closely by accessories at 116. This shows a strong preference for portable devices.
- Desktops (32 sales), storage (27), and networking (9) are trailing behind, indicating a shift towards more flexible, mobile tech solutions.



Request 4: Which segment had the most increase in unique products in 2021 vs 2020?

	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

- Accessories saw a big jump with 34 more sales, and notebooks also grew by 16, showing that people are really into portable devices and extra tech gadgets.
- Desktops increased by 15 sales, and storage/networking grew a little, but they're still not keeping up with the rise in accessories and notebooks.



Request 5: Get the products that have the highest and lowest manufacturing costs.

	product_code	product	segment	manufacturing_cost
•	A6120110206	AQ HOME Allin1 Gen 2	Desktop	240.5364
	A2118150101	AQ Master wired x1 Ms	Accessories	0.8920



- The AQ HOME Allin1 Gen 2 desktop has a manufacturing cost of 240.54, while the AQ Master wired x1 Ms accessory comes in at just 0.89.
- The difference is pretty clear desktops are much more expensive to produce, while accessories keep things light on the budget!



AQ Home Alin1 Gen 2

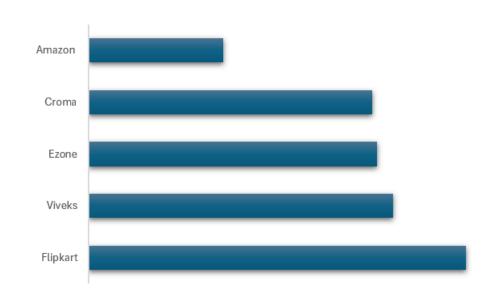


AQ Master wired x 1 MS

Request 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.

	customer_code	customer	avg_discount_percentage
•	90002009	Flipkart	0.3083
	90002006	Viveks	0.3038
	90002003	Ezone	0.3028
	90002002	Croma	0.3025
	90002016	Amazon	0.2933

- Flipkart offers the highest average discount at 0.3083, followed by Vivek's at 0.3038. Ezone (0.3028), Croma (0.3025), and Amazon (0.2933) are close behind.
- Overall, the discounts are pretty similar, with Flipkart leading just a bit.



Request 7: Get the complete report of the Gross sales amount for the customer "Atliq Exclusive" for each month.

•	month September October November	year 2019 2019	gross_sales_amt 4.496
_	October		1. 150
			5.136
		2019	7.523
	December	2019	
	January	2020	
	February	2020	
	March	2020	0.379
	April	2020	
	May	2020	
	June	2020	
	July	2020	2.551
	August	2020	2.787
	September	2020	12.354
	October	2020	13.219
	November	2020	20.465
	December	2020	12.945
	January	2021	12.399
	February	2021	10.130
	March	2021	12.144
	April	2021	7.312
	May	2021	12.150
	June	2021	9.825
	July	2021	12.092
	August	2021	7.179



- **2019:** Sales were steady, with a peak in November, but dropped a lot in March and April 2020, probably due to the pandemic.
- **2020:** Sales really picked up in September and kept going up in October and November, but dropped again toward the end of the year.
- 2021: Sales started lower compared to late 2020, went up in May, but dropped again in August.

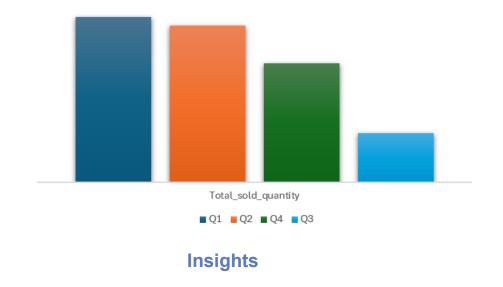
Summary: Sales went up a lot in 2020 after the tough start, but since then, they've been going up and down.

Request 8: In which quarter of 2020, got the maximum total_sold_quantity?

	Quarter	Total_sold_quantity
•	Q1	7.01
	Q2	6.65
	Q4	5.04
	Q3	2.08

Quarterly Breakdown





- •Q1: 7.01 units sold, the highest of the year.
- •Q2: 6.65 units sold, still strong but a slight drop from Q1.
- •Q4: 5.04 units sold, showing a further decline.
- •Q3: 2.08 units sold, the lowest quarter.

Summary: Sales were strongest in the first quarter and dropped throughout the year, with Q3 having the lowest sales.

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

	channel	gross_sales_mln	pct
•	Retailer	1219.08	73.23
	Direct	257.53	15.47
	Distributor	188.03	11.30

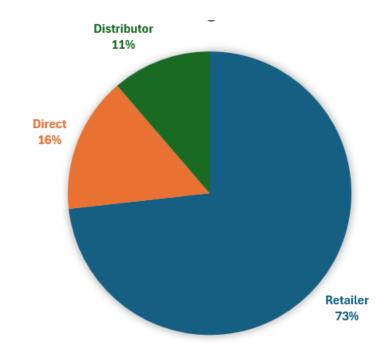
Insights

•Retailer: The biggest share, with 1,219.08 million in sales, making up 73.23% of the total

•Direct: Direct sales brought in 257.53 million, accounting for 15.47%.

•Distributor: Distributors contributed 188.03 million, making up 11.3%.

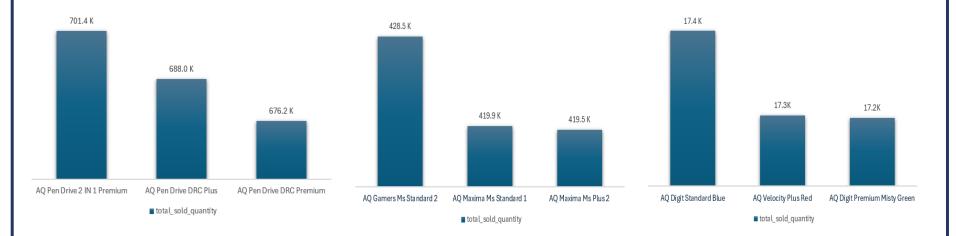
Summary: Retailers dominate sales, making up more than 70% of the total, while direct sales and distributors have smaller shares.



Request 10: Get the Top 3 products in each division that have a high total_sold_quantity in the fiscal_year 2021?

	division	product_code	product_name	total_sold_quantity	rank_order
١	N & S	A6720160103	AQ Pen Drive 2 IN 1 Premium	701373	1
	N & S	A6818160202	AQ Pen Drive DRC Plus	688003	2
	N & S	A6819160203	AQ Pen Drive DRC Premium	676245	3
	P&A	A2319150302	AQ Gamers Ms Standard 2	428498	1
	P&A	A2520150501	AQ Maxima Ms Standard 1	419865	2
	P & A	A2520150504	AQ Maxima Ms Plus 2	419471	3
	PC	A4218110202	AQ Digit Standard Blue	17434	1
	PC	A4319110306	AQ Velocity Plus Red	17280	2
	PC	A4218110208	AQ Digit Premium Misty Green	17275	3

Request 10: Insights



- •N & S division dominates with AQ Pen Drive 2 IN 1 Premium leading sales at 701,373 units, followed by AQ Pen Drive DRC Plus and DRC Premium.
- •P & A division sees AQ Gamers Ms Standard 2 at the top with 428,498 units sold, closely followed by AQ Maxima Ms Standard 1 and AQ Maxima MS Plus 2.
- •PC division has significantly lower sales, with AQ Digit Standard Blue leading at 17,434 units, followed by AQ Velocity Plus Red and AQ Digit Premium Misty Green.

Thank You!

Your feedback is valuable to us – share it in the comments.





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