

Consumer Good Ad-hoc Insights

Presented by :- Abhishek Jaikaran Yadav



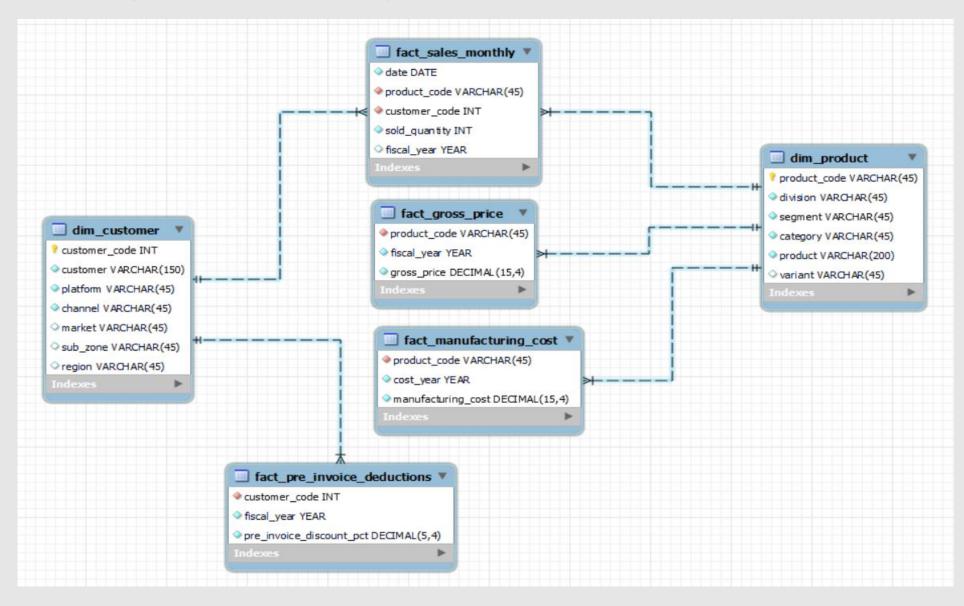


Codebasics SQL Challenge

The challenge consisted of answering 10 ad-hoc requests for business insights, which required me to run SQL queries and present the results in a way that would be meaningful and accessible to top-level management.

Consumer Goods Ad_Hoc query results and Insights Analysis

> Entity Relationship Model of Data



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



Insights

• The Customer 'Atliq Exclusive' operates its business in 8 major markets in the APAC Region.

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Request 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
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	:	
unique_products_2020	unique_products_2021	percentage_cng
245	334	36.3

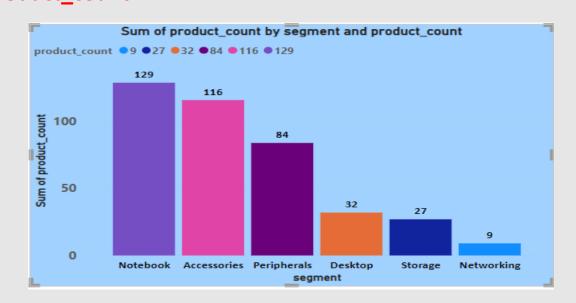
Insights

• With a 36.3% increase in unique products in 2021.

Request 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

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

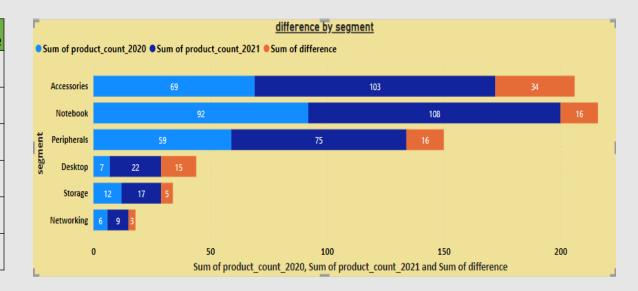


- We have a wide range of products under segment like Notebook,
 Accessories, Peripherals, Desktop, Storage and Network.
- Number of unique Product in Notebook segment is very high and Networking segment is very less unique product.

Request 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_2021,difference

product_count_20	020 product_count_2021	difference
69	103	34
92	108	16
59	75	16
7	22	15
12		5
		3
	69 92	92 108 59 75 7 22 12 17



- Accessories segment has the highest increase in the number of 34 new products.
- Notebook and Peripherals each has an increment of 16 new unique products
- Desktop segment has the increment of 15 new products in the year 2021
- Storage segment has the increment of only 5 new products
- Networking segment is at the bottom with 3 new products in the year 2021

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

The final output should contain these fields, product_code product manufacturing_cost

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

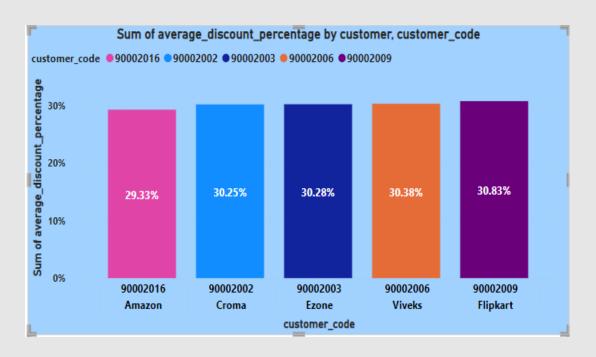
- AQ HOME Allin1 Gen 2 has the highest manufacturing costs of \$240.54
- AQ Master wired x1 Ms has the lowest manufacturing costs of \$0.89

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. The final output contains these fields, customer_code

customer

average_discount_percentage

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%



Insights

Flipkart has received the highest pre invoice discount percent i.e., 30.83%



☐ Request 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

month	year	gross_sales_amount
September	2019	9092670.339
October	2019	10378637.6
November	2019	15231894.97
December	2019	9755795.058
January	2020	9584951.939
February	2020	8083995.548
March	2020	766976.4531
April	2020	800071.9543
May	2020	1586964.477
June	2020	3429736.571
July	2020	5151815.402
August	2020	5638281.829
September	2020	19530271.3
October	2020	21016218.21
November	2020	32247289.79
December	2020	20409063.18
January	2021	19570701.71
February	2021	15986603.89
March	2021	19149624.92
April	2021	11483530.3
May	2021	19204309.41
June	2021	15457579.66
July	2021	19044968.82
August	2021	11324548.34



- For Atliq Exclusive Store, maximum sales were recorded in November 2020 and lowest sales recorded in March 2020
- Low sales from March to August
- Sales started improving from September 2020

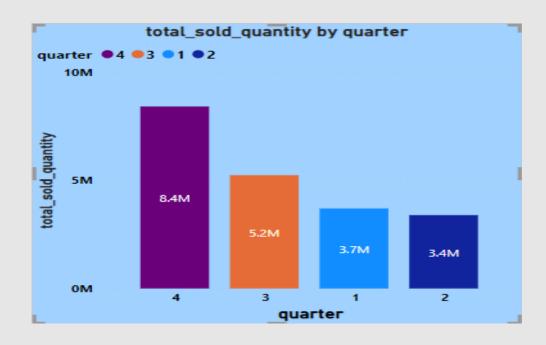
Request 8:- In which quarter of 2020, got the maximum total_sold_quantity?

The final output contains these fields sorted by the total_sold_quantity,

Quarter

total_sold_quantity

quarter	total_sold_quantity
4	8425822
3	5246770
1	3704398
2	3395899



- Q4 had the maximum quantity sold for FY 2020
- quantity dropped in Q2
- Increase in sales recorded in Q3 and Q4

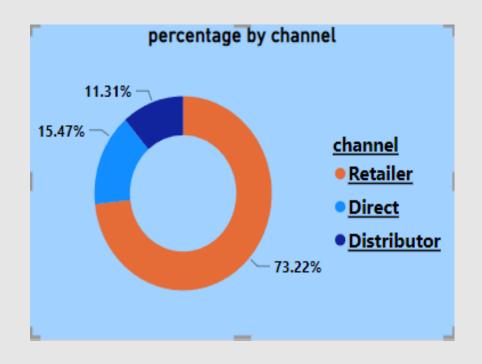
Request 9:- Which channel helped to bring more gross sales in the fiscal year 2021

and the percentage of contribution? The final output contains these fields,

channel

gross_sales_mln percentage

channel	gross_sales_mln	percentage
Retailer	1924170398	73.22%
Direct	406686873.9	15.47%
Distributor	297175879.7	11.31%



Insights

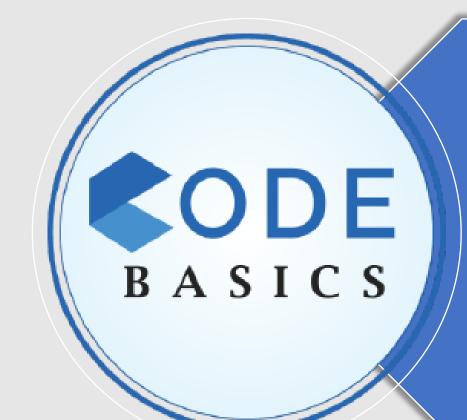
 Retailers with 73.23% of gross sales for FY 2021, which was followed by Direct and Distributor channel with 15.47% and 11.31% of gross sales for FY 2021. Request 10:- Get the Top 3 products in each division that have a high total_sold_quantity in the fiscal_year 2021? The final output contains these fields,

division, product_code, Product, total_sold_quantity, rank_order

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



- For N&S, the top selling product is AQ Pen Drive 2 IN 1 with a total of 7,01,373 quantities sold in FY 2021 followed by two variants of AQ Pen Drive DRC with 6,88,003 and 6,76,245 quantity sold respectively.
- For P&A, top selling product is AQ Gamers Ms with 4,28,498 quantities sold followed by two variants of AQ Maxima Ms with 4,19,865 and 4,19,471 quantity sold respectively.
- For PC, top selling product is AQ Digit PC with 17,434 quantities sold followed by AQ Velocity PC with 17,280 and AQ Digit PC with 17,275 quantity sold respectively.



Thank You