



Consumer Goods Ad_Hoc Insights using SQL

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

Query and Result

```
1 • SELECT
2     DISTINCT market
3 FROM dim_customer
4 WHERE customer='Atliq Exclusive' AND region="APAC";
```

Result Grid		Filter Rows:	Export:	Wrap Cell Content:
	market			
▶	India			
	Indonesia			
	Japan			
	Philippines			
	South Korea			
	Australia			
	Newzealand			
	Bangladesh			

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

Query

```
1 • WITH cte1 AS
2   (
3     SELECT COUNT(DISTINCT product_code) AS unique_products_2020
4     FROM fact_sales_monthly WHERE fiscal_year=2020
5   ),
6   cte2 AS
7   (
8     SELECT COUNT(DISTINCT product_code) AS unique_products_2021
9     FROM fact_sales_monthly WHERE fiscal_year=2021
10  )
11  SELECT
12    unique_products_2020,
13    unique_products_2021,
14    ((unique_products_2021/unique_products_2020)-1)*100 AS pct_change
15  FROM cte1,cte2;
```

Result

	unique_products_2020	unique_products_2021	pct_change
▶	245	334	36.3265

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

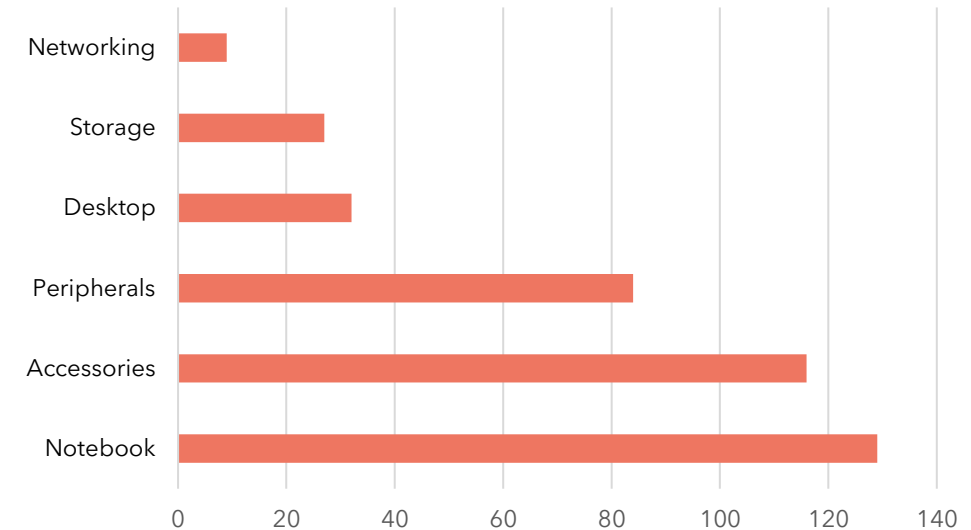
Query

```
1 • SELECT
2     segment,
3     COUNT(DISTINCT product_code) AS unique_product_count
4 FROM dim_product GROUP BY segment ORDER BY unique_product_count DESC;
```

Result Grid	
Filter Rows:	Export: Wrap Cell Content:
segment	unique_product_count
Notebook	129
Accessories	116
Peripherals	84
Desktop	32
Storage	27
Networking	9

Result - Visualized

unique products per segment



Request 4: Provide a report with all the unique product counts for each segment and sort them in descending order of product counts.

Query

```
1 • WITH products_2020 AS
2 (
3     SELECT
4         segment,
5         COUNT(DISTINCT s.product_code) AS unique_products_2020
6     FROM dim_product p JOIN fact_sales_monthly s
7     ON s.product_code = p.product_code
8     WHERE fiscal_year=2020
9     GROUP BY p.segment
10 ),
```

```
1 • WITH products_2020 AS
2 (
3     SELECT
4         segment,
5         COUNT(DISTINCT s.product_code) AS unique_products_2020
6     FROM dim_product p JOIN fact_sales_monthly s
7     ON s.product_code = p.product_code
8     WHERE fiscal_year=2020
9     GROUP BY p.segment
10 ),
```

Request 4: Provide a report with all the unique product counts for each segment and sort them in descending order of product counts.

Query (Cont...)

```
21  SELECT
22      p21.segment,
23      unique_products_2020,
24      unique_products_2021,
25      unique_products_2021-unique_products_2020 AS difference
26  FROM products_2021 p21
27  JOIN products_2020 p20
28  on p21.segment = p20.segment
29  ORDER BY difference DESC
30  ;
```

Result

	segment	unique_products_2020	unique_products_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

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

Query

```
1 • SELECT
2     m.product_code,
3     product,
4     manufacturing_cost FROM dim_product p
5 JOIN fact_manufacturing_cost m
6 USING (product_code)
7 WHERE manufacturing_cost IN
8 (
9     (SELECT MAX(manufacturing_cost) FROM fact_manufacturing_cost),
10    (SELECT MIN(manufacturing_cost) FROM fact_manufacturing_cost)
11 )
12 ORDER BY manufacturing_cost DESC
13 ;
```

Result

	product_code	product	manufacturing_cost
▶	A6120110206	AQ HOME Allin1 Gen 2	240.5364
	A2118150101	AQ Master wired x1 Ms	0.8920

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.

Query

```
1 • SELECT
2     customer_code,
3     customer,
4     pre_invoice_discount_pct
5 FROM dim_customer
6 JOIN fact_pre_invoice_deductions
7 USING (customer_code)
8 WHERE market = "India"
9 AND fiscal_year="2021"
10 AND pre_invoice_discount_pct >
11 (
12     SELECT
13         AVG(pre_invoice_discount_pct)
14     FROM fact_pre_invoice_deductions
15 )
16 ORDER BY pre_invoice_discount_pct DESC
17 LIMIT 5
```

Result

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

**Avg. Pre Invoice Discount
pct - 0.23361627**

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.

Query

```
1 • SELECT
2     MONTHNAME(date) AS month,
3     s.fiscal_year,
4     ROUND(SUM(gross_price*sold_quantity),2) AS gross_sales_amount
5 FROM fact_sales_monthly s
6 JOIN fact_gross_price g
7 USING(product_code)
8 JOIN dim_customer c
9 USING(customer_code)
10 WHERE c.customer="Atliq Exclusive"
11 GROUP BY month,s.fiscal_year
12 ORDER BY s.fiscal_year;
```

Result

	month	fiscal_year	gross_sales_amount
▶	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

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.

Result - Visualized (After converting to wide data in Excel)



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

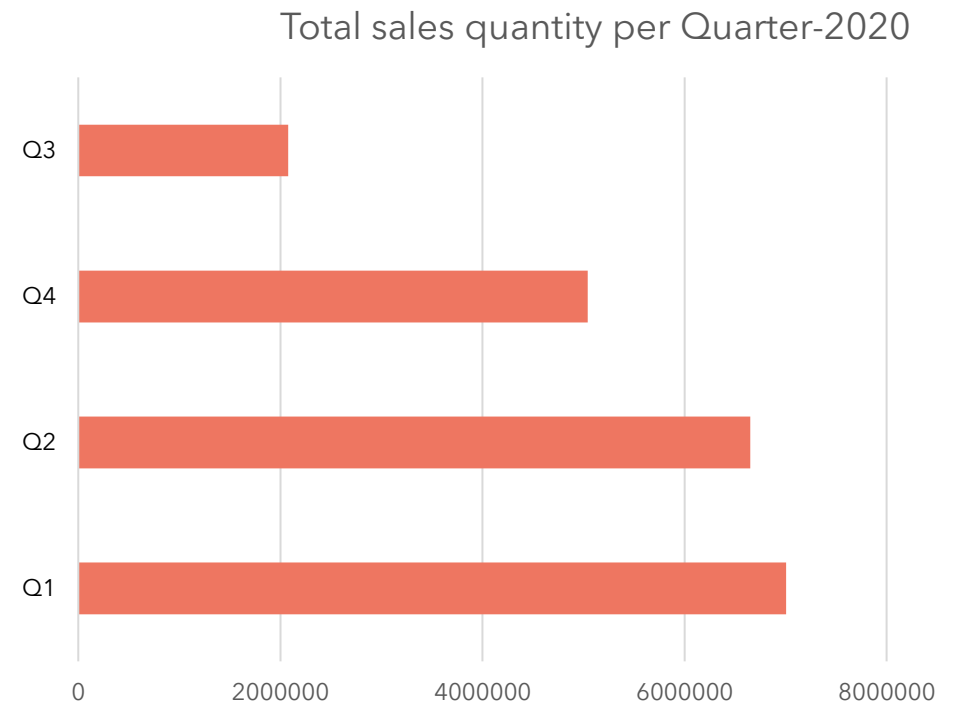
Query

```
110 • SELECT
111     get_quarter(month(date)) AS quarter,
112     SUM(sold_quantity) AS total_sales_quantity_2020
113 FROM fact_sales_monthly
114 WHERE fiscal_year="2020"
115 GROUP BY quarter
116 ORDER BY total_sales_quantity_2020 DESC;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: |

quarter	total_sales_quantity_2020
Q1	7005619
Q2	6649642
Q4	5042541
Q3	2075087

Result - Visualized



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

Query

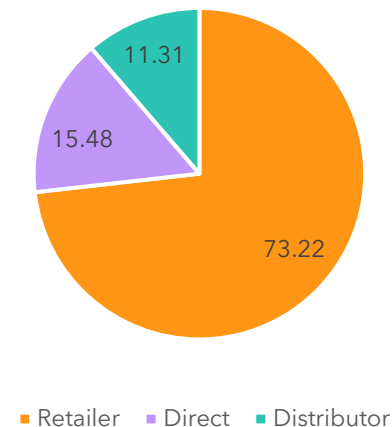
```
1 • WITH channel_sales_pct AS
2 (
3     SELECT
4         c.channel,
5         ROUND(SUM(s.sold_quantity*g.gross_price)/1000000,2) AS gross_sales_mln
6     FROM dim_customer c
7     JOIN fact_sales_monthly s
8     USING (customer_code)
9     JOIN fact_gross_price g
10    USING (product_code)
11    WHERE s.fiscal_year = "2021"
12    GROUP BY c.channel
13 )
14 SELECT
15     *,
16     FORMAT(gross_sales_mln*100/SUM(gross_sales_mln) OVER(),2) AS pct
17 FROM channel_sales_pct
18 ORDER BY pct DESC
```

Result

	channel	gross_sales_mln	pct
▶	Retailer	1924.17	73.22
	Direct	406.69	15.48
	Distributor	297.18	11.31

Result - Visualized

Gross sales contribution per channel



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

Query

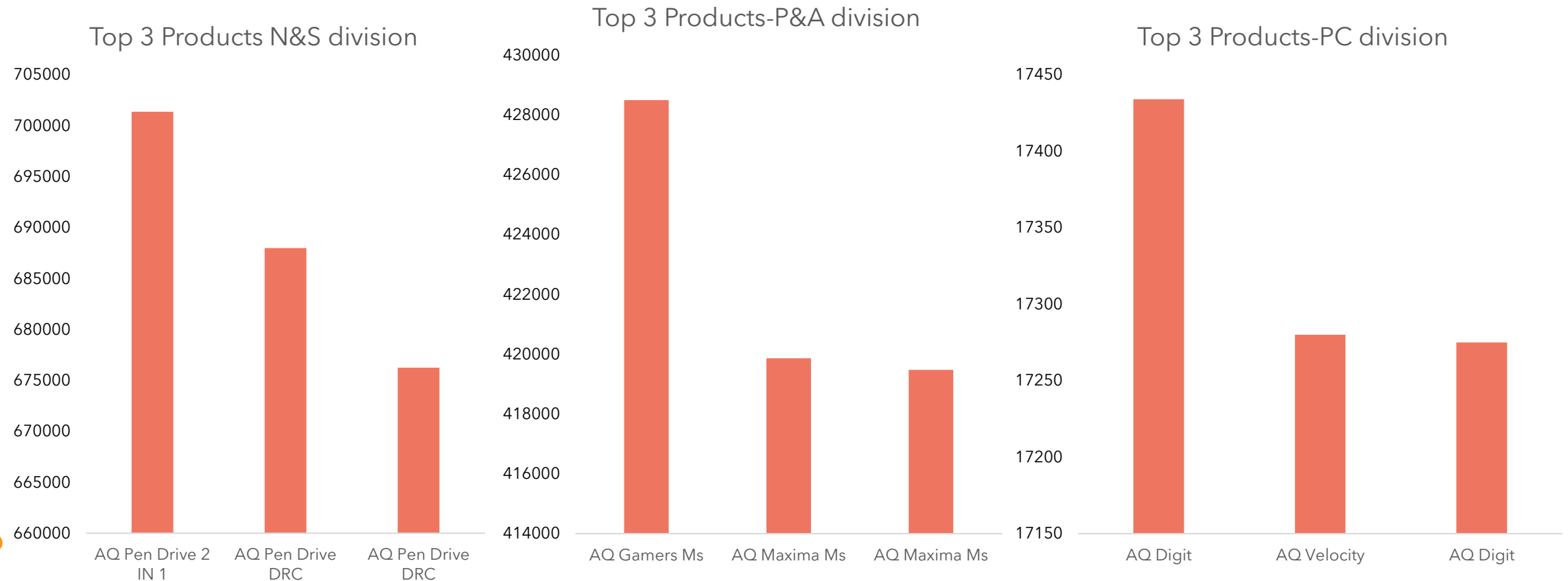
```
1 • WITH product_details AS
2 (
3     SELECT
4         division,
5         s.product_code,
6         product,
7         SUM(sold_quantity) AS total_sold_quantity
8     FROM dim_product JOIN
9     fact_sales_monthly s
10    USING (product_code)
11    WHERE fiscal_year="2021"
12    GROUP BY division,s.product_code,product
13 )
14 ,product_rankings AS(
15     SELECT
16         *,
17         DENSE_RANK() OVER(PARTITION BY division ORDER BY total_sold_quantity DESC) AS rank_order
18     FROM product_details
19 )
20 SELECT * FROM product_rankings WHERE rank_order < 4;
```

Result

	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

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

Result - Visualized





Thank You!