

# Consumer Goods

## Ad-hoc Insights

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# Business Requirement

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Domain: Consumer Goods

Function: Executive Management

About the Project: Atliq Hardware 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.

# Tools Used:

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SQL – To query data

Powerpoint – For presentation

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

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```
SELECT distinct market FROM gdb023.dim_customer  
where customer = 'AtliQ Exclusive' and region = 'APAC'
```



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

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```
• with cte1 as(  
  SELECT count(distinct product_code) as unique_product_2020  
  FROM fact_sales_monthly  
  where fiscal_year=2020),  
  
  cte2 as(  
    SELECT count(distinct product_code) as unique_product_2021  
    FROM fact_sales_monthly  
    where fiscal_year=2021)  
  
  select  
    unique_product_2020,  
    unique_product_2021,  
    round((unique_product_2021 - unique_product_2020) /unique_product_2020 *100,2) as percentage_chg  
  from cte1,cte2
```

	unique_product_2020	unique_product_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 product\_count 4.

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```
1 • SELECT
2   distinct segment,
3   count(distinct product_code) as product_count
4 FROM dim_product
5 group by segment
6 order by product_count desc
7
```

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

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

```
1 • with cte1 as(  
2     SELECT count(distinct p.product_code) as product_count_2020,  
3     segment  
4     FROM fact_sales_monthly fsm  
5     join dim_product p  
6     on fsm.product_code = p.product_code  
7     where fiscal_year=2020  
8     group by segment),  
9  
10  cte2 as(  
11     SELECT count(distinct p.product_code) as product_count_2021,  
12     segment  
13     FROM fact_sales_monthly fsm  
14     join dim_product p  
15     on fsm.product_code = p.product_code  
16     where fiscal_year=2021  
17     group by segment)  
18  
19  select  
20  cte1.segment,  
21  cte1.product_count_2020,  
22  cte2.product_count_2021,  
23  (cte2.product_count_2021 - cte1.product_count_2020) as diff  
24  FROM cte1  
25  JOIN cte2 ON cte1.segment = cte2.segment  
26  ORDER BY diff DESC;
```

segment	product_count_2020	product_count_2021	diff
Accessories	69	103	34
Notebook	92	108	16
Peripherals	59	75	16
Desktop	7	22	15
Storage	12	17	5
Networking	6	9	3

5. Get the products that have the highest and lowest manufacturing costs. The final output should contain these fields, product\_code product manufacturing\_cost

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```
1  • with cte1 as(  
2      select distinct p.product_code,  
3      p.product,  
4      manufacturing_cost  
5      from dim_product p  
6      join fact_manufacturing_cost fmc  
7      on p.product_code = fmc.product_code  
8      order by fmc.manufacturing_cost desc)  
9  
10  SELECT  
11      product_code,  
12      product,  
13      manufacturing_cost  
14  FROM cte1  
15  WHERE manufacturing_cost = (SELECT MIN(manufacturing_cost) FROM cte1)  
16      OR manufacturing_cost = (SELECT MAX(manufacturing_cost) FROM cte1);
```

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



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

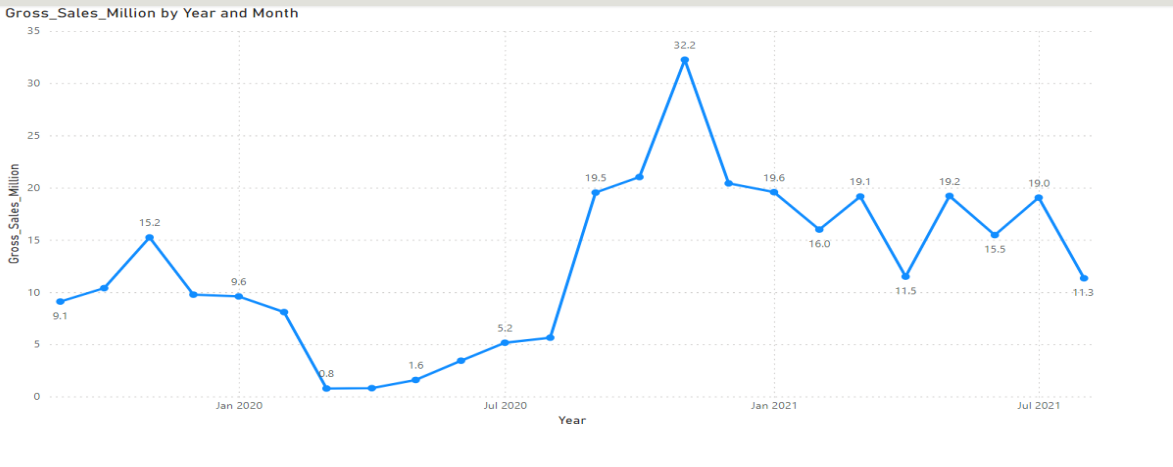
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```
4 • select c.customer_code,  
5 avg(pre_invoice_discount_pct) as average_discount_percentage  
6 from  
7 fact_pre_invoice_deductions pid  
8 join dim_customer c  
9 on pid.customer_code = c.customer_code  
10 where c.market = 'India' and fiscal_year = 2021  
11 group by customer_code  
12 order by average_discount_percentage desc limit 5
```

	customer_code	average_discount_percentage
▶	90002009	0.30830000
	90002006	0.30380000
	90002003	0.30280000
	90002002	0.30250000
	90002016	0.29330000

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

```
1 • select
2   DATE_FORMAT(date, '%b') AS month,
3   year(date) as year,
4   round(sum(fsm.sold_quantity*fgp.gross_price)/1000000,2) as gross_Sales_ml
5 from fact_sales_monthly fsm
6 join fact_gross_price fgp on fsm.product_code = fgp.product_code
7 join dim_customer c on fsm.customer_code = c.customer_code
8 where customer = 'AtliQ Exclusive'
9 group by DATE_FORMAT(date, '%b'),year(date)
10 order by year(date)
11
```



month	year	gross_Sales_ml
Sep	2019	9.09
Oct	2019	10.38
Nov	2019	15.23
Dec	2019	9.76
Jan	2020	9.58
Feb	2020	8.08
Mar	2020	0.77
Apr	2020	0.80
May	2020	1.59
Jun	2020	3.43
Jul	2020	5.15
Aug	2020	5.64
Sep	2020	19.53
Oct	2020	21.02
Nov	2020	32.25
Dec	2020	20.41
Jan	2021	19.57
Feb	2021	15.99
Mar	2021	19.15
Apr	2021	11.48
May	2021	19.20
Jun	2021	15.46
Jul	2021	19.04
Aug	2021	11.32

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

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```
1 • SELECT
2 CASE
3   when month(date) in (9,10,11) then 'Q1'
4   when month(date) in (12,1,2) then 'Q2'
5   when month(date) in (3,4,5) then 'Q3'
6   when month(date) in (6,7,8) then 'Q4'
7   end as qtr,
8   sum(sold_quantity) as total_sold
9   FROM fact_sales_monthly fsm
10  join dim_customer c on c.customer_code = fsm.customer_code
11  where fiscal_year=2020
12  group by
13 CASE
14   when month(date) in (9,10,11) then 'Q1'
15   when month(date) in (12,1,2) then 'Q2'
16   when month(date) in (3,4,5) then 'Q3'
17   when month(date) in (6,7,8) then 'Q4'
18   end
19  order by total_sold DESC
20
```

	qtr	total_sold
▶	Q1	7005619
	Q2	6649642
	Q4	5042541
	Q3	2075087

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

```
2 • with cte1 as(  
3     select  
4     c.channel,  
5     round(sum(fsm.sold_quantity*fgp.gross_price)/1000000,2) as gross_Sales_mln  
6     from fact_sales_monthly fsm  
7     join fact_gross_price fgp on fsm.product_code = fgp.product_code  
8     join dim_customer c on fsm.customer_code = c.customer_code  
9     where fsm.fiscal_year = 2021  
10    group by c.channel  
11    order by round(sum(fsm.sold_quantity*fgp.gross_price)/1000000,2) DESC  
12 )  
13  
14 SELECT  
15     cte1.channel,  
16     cte1.gross_Sales_mln,  
17     ROUND(cte1.gross_Sales_mln / SUM(cte1.gross_Sales_mln)OVER() * 100, 2) AS percentage_contribution  
18 FROM  
19     cte1;  
20  
21
```

	channel	gross_Sales_mln	percentage_contribution
▶	Retailer	1924.17	73.22
	Direct	406.69	15.48
	Distributor	297.18	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

```
3 with cte1 as(
4     SELECT
5     p.division,
6     p.product_code,
7     p.product,
8     sum(fsm.sold_quantity) as total_sold_quantity
9     FROM fact_sales_monthly fsm
10    join dim_product p on fsm.product_code = p.product_code
11   where fsm.fiscal_year=2021
12   group by
13   p.product,
14   p.product_code,
15   p.division),
16
17 cte2 as(
18     select
19     cte1.division,
20     cte1.product_code,
21     cte1.product,
22     cte1.total_sold_quantity,
23     dense_rank() over(partition by division order by total_sold_quantity desc) as rank_order
24   from cte1)
```

	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