Consumer Goods Ad hoc Insights

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Company Overview

- Atliq Hardware is one of the leading computer hardware producers in India as well as 26 other countries across the globe.
- Manufactures products under 3 major divisions i.e., Peripherals & Accessories, PC, Networking & Storage.
- We have a total of 74 Customers like Neptune, Sage, Leader, Vijay Sales etc. across all markets/countries.

Objective

- Assist the management team to gain more insights about the business.
- Take data-driven decisions to scale business.

About data

- We have 4 fact tables i.e., sales monthly, manufacturing cost, pre invoice deductions, gross price which have measurable metrics and 2 dimension table i.e., customer details and product details.
- Fiscal year for Atliq Hardware starts from 1st September and ends on 31st August each year
- Sales data is available for fiscal year 2020-2021.

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

```
SELECT distinct market
FROM dim_customer
 where customer = "Atliq
Exclusive“
 and
region ="APAC"
```

market
India
Indonesia
Japan
Philiphines
South Korea
Australia
Newzealand
Bangladesh

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

```
select
segment ,
count(distinct(product_code
))  as product_count
from dim_product
group by segment
order by product_count
desc
```

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

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

```
SELECT pro.product_code,pro.product ,cost.manufacturing_cost
FROM fact_manufacturing_cost  as cost
join dim_product as pro
on cost.product_code=pro.product_code
where manufacturing_cost=
(select max(manufacturing_cost) from fact_manufacturing_cost)
Or
manufacturing_cost=
(select min(manufacturing_cost) from fact_manufacturing_cost)
order by manufacturing_cost  desc
```

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

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

```
SELECT cust.customer_code,cust.customer ,
round(avg(pre_invoice_discount_pct),4) as
average_discount_percentage
FROM fact_pre_invoice_deductions as invoice
join dim_customer as cust
on invoice.customer_code=cust.customer_code
where market ="India" and fiscal_year = 2021
group by cust.customer_code , cust.customer
order by average_discount_percentage desc
limit 5
```

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

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

```
SELECT monthname(date) as monthname ,
year(date) as year_ ,
round(sum(gross_price*sold_quantity),2) as
gross_sales_amount
FROM fact_gross_price as price
join  fact_sales_monthly as sales
on price.product_code=sales.product_code
join dim_customer as cust
on sales.customer_code=cust.customer_code
where cust.customer="Atliq Exclusive“
group by monthname , year_
order by year_
```

monthname	year_	gross_sales_amount
September	2019	9092670.34
October	2019	10378637.60
November	2019	15231894.97
December	2019	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	2020	19530271.30

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

```
SELECT case
when month(date) in (9,10,11) then "Q1"
when month(date) in (12,1,2) then "Q2“
when month(date) in (3,4,5) then "Q3"
else "Q4" end as quarter ,
sum(sold_quantity) as  total_quantity_sold
FROM fact_sales_monthly
where fiscal_year = 2020
group by quarter
```

	quarter	total_quantity_sold
▶	Q1	7005619
	Q2	6649642
	Q3	2075087
	Q4	5042541

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

```
with sales_amount as
(SELECT cust.channel ,
 ound(sum(gross_price*sold_quantity)/1000000,2)
as gross_sales_amount
FROM fact_gross_price as price
join  fact_sales_monthly as sales
on price.product_code=sales.product_code
join dim_customer as cust
on sales.customer_code=cust.customer_code
where sales.fiscal_year = 2021
group by channel
order by gross_sales_amount desc)
select
channel , gross_sales_amount,
round(gross_sales_amount/(sum(gross_sales_amo
unt) over())*100,2) as percentage
from sales_amount
```

channel	gross_sales_amount	percentage
Retailer	1924.17	73.22
Direct	406.69	15.48
Distributor	297.18	11.31

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

```
with top_products as
(SELECT pro.division, pro.product_code,
pro.product, sum(sales.sold_quantity) as
total_sold_quantity
FROM fact_sales_monthly as sales
join dim_product as pro
on sales.product_code=pro.product_code
where sales.fiscal_year =2021
group by pro.division,
pro.product_code,pro.product
order by total_sold_quantity desc)
select division,product_code,product,
total_sold_quantity,rank_order from(select
division,product_code,product,total_sold_quantity,
dense_rank () over(partition by division order by
total_sold_quantity ) as rank_order
from top_products) test
where rank_order<=3
```

division	product_code	product	total_sold_quantity	rank_order
N & S	A7219160201	AQ Wi Power Dx2	275328	1
N & S	A7220160203	AQ Wi Power Dx2	277299	2
N & S	A7321160301	AQ Wi Power Dx3	281363	3
P & A	A3920150304	AQ LION x3	33523	1
P & A	A3718150102	AQ LION x1	34022	2
P & A	A3718150105	AQ LION x1	34080	3
PC	A6018110106	AQ Home Allin1	2281	1
PC	A6119110202	AQ HOME Allin1 Gen 2	2285	2
PC	A6119110204	AQ HOME Allin1 Gen 2	2286	3

THANK YOU