

Consumer Goods Ad-Hoc Analysis

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Overview

Atliq Hardwares is one of the leading computer hardware producers globally



Problem Statement

There are not many insights to make quick and smart decisions.

I will conduct an Ad-Hoc analysis to gather those insights by utilising SQL on the company database

#1 Markets in which Atliq Exclusive operates its business in the APAC region

Query:

```
SELECT DISTINCT market,region,customer
FROM dim_customer
WHERE region="APAC" AND customer="Atliq Exclusive";
```

Insights:

Atliq Exclusive operates in a total of 8 countries in the APAC region

Output:

market	region	customer
India	APAC	Atliq Exclusive
Indonesia	APAC	Atliq Exclusive
Japan	APAC	Atliq Exclusive
Philiphines	APAC	Atliq Exclusive
South Korea	APAC	Atliq Exclusive
Australia	APAC	Atliq Exclusive
Newzealand	APAC	Atliq Exclusive
Bangladesh	APAC	Atliq Exclusive

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

Query:

```
WITH x AS
(SELECT
(SELECT DISTINCT COUNT(product_code) FROM fact_gross_price WHERE fiscal_year=2020) AS unique_products_2020,
(SELECT DISTINCT COUNT(product_code) FROM fact_gross_price WHERE fiscal_year=2021) AS unique_products_2021

SELECT unique_products_2020,unique_products_2021,
100*(unique_products_2021-unique_products_2020)/unique_products_2020 AS percentage_chg
FROM x;
```

Output:

unique_products_2020	unique_products_2021	percentage_chg
245	334	36.3265

Insights:

- There were a total of 245 unique products in 2020
- There were a total of 334 unique products in 2021
- The percentage increase in products from 2020 to 2021 is 36.3265%

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

Query:

```
SELECT segment,COUNT(DISTINCT product_code) AS product_count
FROM dim_product
GROUP BY segment
ORDER BY product_count DESC;
```

Output:

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

Insights:

- The highest product_count is of the notebook segment
- The lowest product count is of the networking segment

#4 Get the products that have the highest and lowest manufacturing costs

Query:

```
SELECT dp.product_code,dp.product,fmc.manufacturing_cost
FROM dim_product dp
JOIN fact_manufacturing_cost fmc
ON dp.product_code=fmc.product_code
WHERE fmc.manufacturing_cost = (SELECT manufacturing_cost FROM fact_manufacturing_cost ORDER BY manufacturing_cost DESC LIMIT 1)
OR fmc.manufacturing_cost = (SELECT manufacturing_cost FROM fact_manufacturing_cost ORDER BY manufacturing_cost ASC LIMIT 1)
ORDER BY fmc.manufacturing_cost DESC
```

Output:

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

Insights:

- The highest manufacturing cost is 240.5634, of the product AQ Home Allin Gen 2
- The lowest manufacturing cost is of AQ Master wired x1 Ms

#5 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:

```
WITH x AS
(
SELECT pid.customer_code,dc.customer,pid.fiscal_year,pid.pre_invoice_discount_pct,dc.market
FROM dim_customer dc
JOIN fact_pre_invoice_deductions pid
ON dc.customer_code=pid.customer_code
)
SELECT customer_code,customer,fiscal_year,pre_invoice_discount_pct AS average_discount_percentage
FROM x
WHERE fiscal_year=2021 AND market="India"
ORDER BY average_discount_percentage DESC
LIMIT 5
```

Insights:

- Flipkart, Viveks, Ezone, Croma are the top five customers with highest average_discount_percentage

Output:

customer_code	customer	fiscal_year	average_discount_percentage
90002009	Flipkart	2021	0.3083
90002006	Viveks	2021	0.3038
90002003	Ezone	2021	0.3028
90002002	Croma	2021	0.3025
90002016	Amazon	2021	0.2933

THANK YOU!

