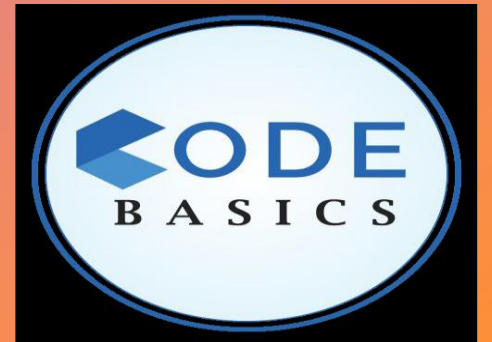




ATLIQ HARDWARE CONSUMER GOODS AD_HOC INSIGHTS

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SQL PROJECT CHALLENGE

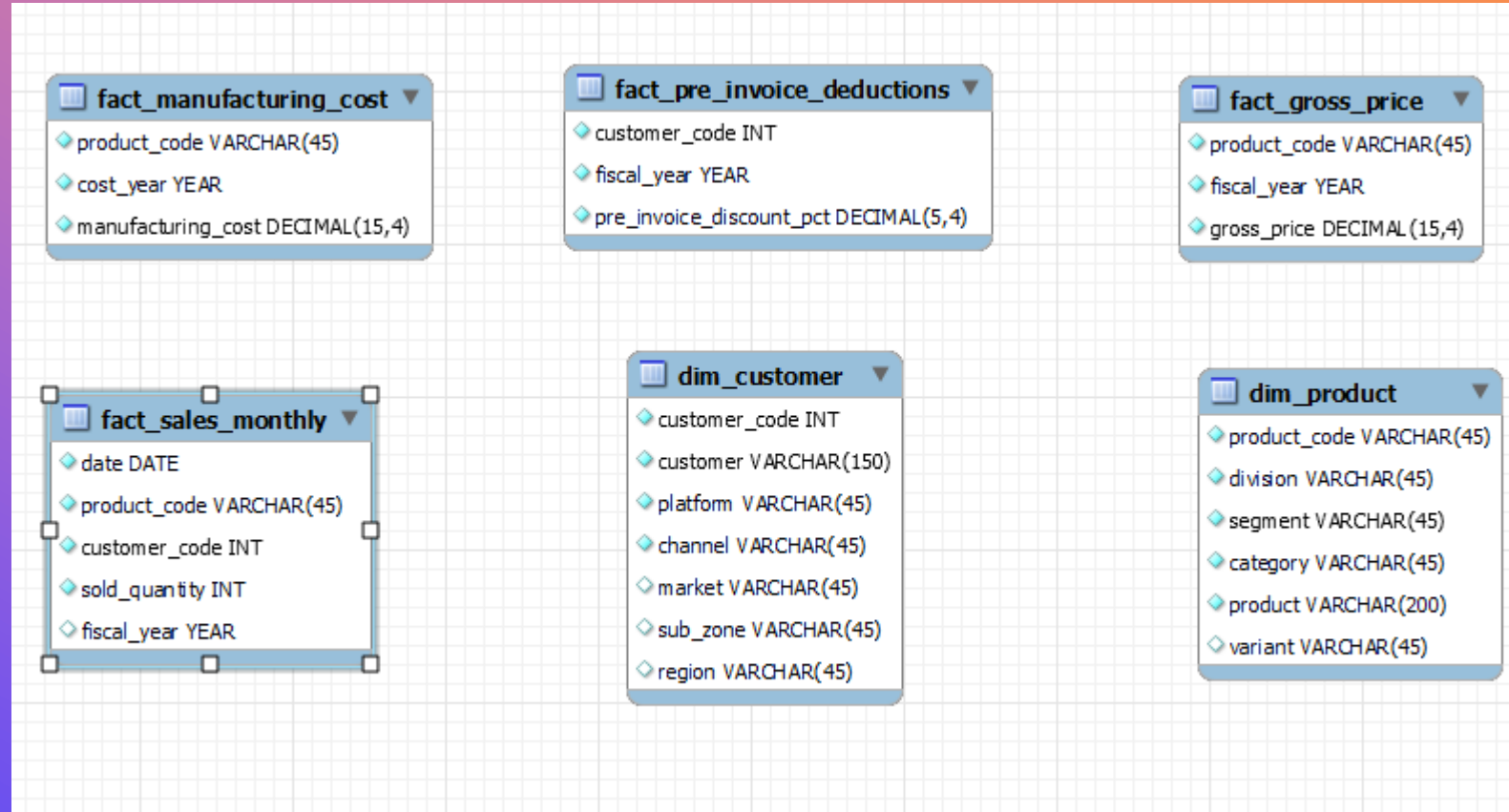


AIM OF THE PROJECT

- Atliq Hardware has asked for a business insights project to better understand its clients, the market, and Sales. With the help of this project, the company will have the data it needs to decide wisely and improve its business plan.
- Atliq Hardware has become a leading supplier of high-quality hardware. Atliq Hardware recognizes the importance of staying ahead of the competition by identifying key market trends and opportunities for growth.
- In this report, I will explore the 10 requests made by Atliq Hardware and provide insights on each one. These requests cover a range of topics, including customer behavior, market analysis, and Revenue. By examining these areas in detail using SQL, I will provide Atliq Hardware with the necessary information to make data-driven decisions and optimize their business strategy.

DATABASE INCLUDES SIX MAIN TABLES:

- 1. dim_customer: contains customer-related data
- 2. dim_product: contains product-related data
- 3. fact_gross_price: contains gross price information for each product
- 4. fact_manufacturing_cost: contains the cost incurred in the production of each product
- 5. fact_pre_invoice_deductions: contains pre-invoice deductions information for each product
- 6. fact_sales_monthly: contains monthly sales data for each product.



REQUESTS 1:

PROVIDE THE LIST OF MARKETS IN WHICH CUSTOMER "ATLIQ EXCLUSIVE" OPERATES ITS BUSINESS IN THE APAC REGION.

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

Insights

Result indicates "Atliq Exclusive" have customers from 8 different countries when it's operated in APAC region.

REQUESTS 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

unique_products_2020	unique_products_2021	percentage_chg
51	68	33.3333

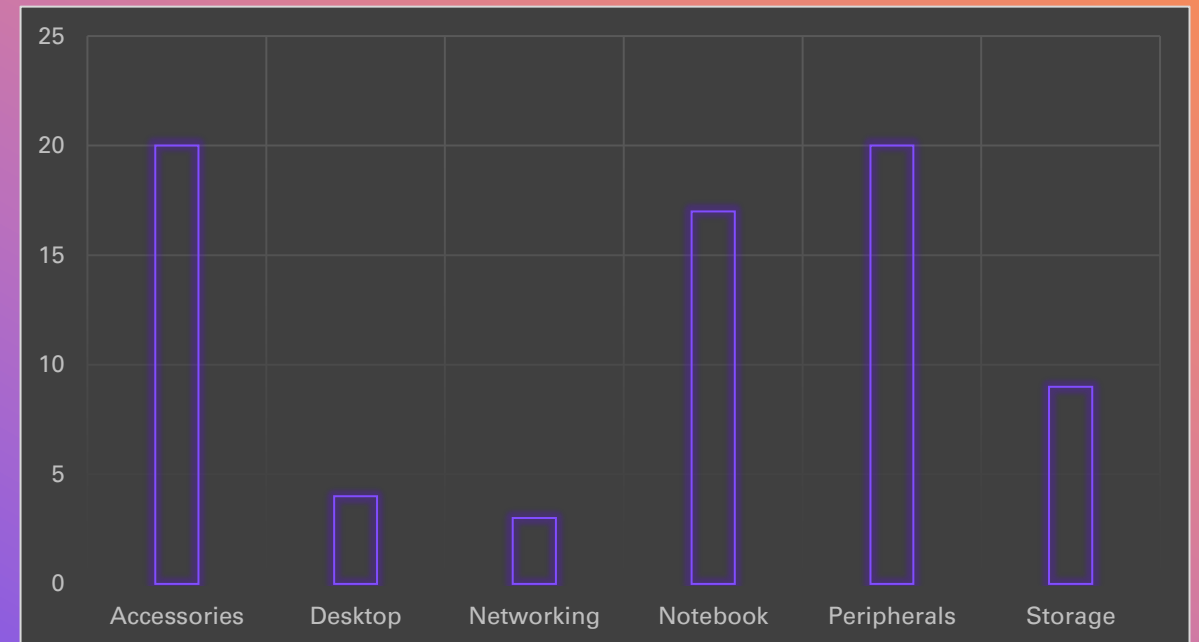
Insights

Results indicates that no of Unique products have raised by 33.3% in the year 2021 compared to Fiscal year 2020.

REQUESTS 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
Accessories	20
Peripherals	20
Notebook	17
Storage	9
Desktop	4
Networking	3



Insights

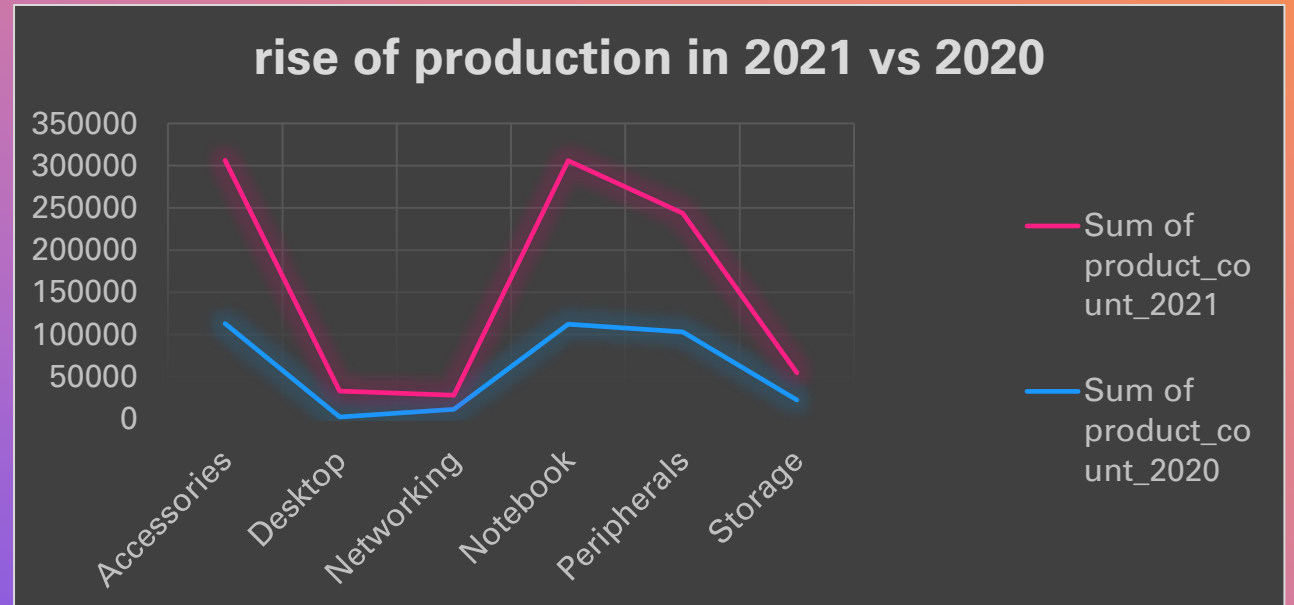
Atliq hardware produces most of the products from Accessories, peripherals, Notebook compares to other segments.

REQUESTS 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.

segment	product_count_2020	product_count_2021	difference
Notebook	112187	193825	81638
Accessories	112763	193598	80835
Peripherals	102878	141045	38167
Desktop	2026	30734	28708
Storage	22453	31977	9524
Networking	11216	16929	5713



Insights

Result shows that Atliq hardware as increased its production in every segment in the year 2021 compared to 2020 to meet the customer requirements.

REQUESTS 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	240.5364
A6120110205	AQ HOME Allin1 Gen 2	240.3065
A6119110204	AQ HOME Allin1 Gen 2	238.7739
A6119110203	AQ HOME Allin1 Gen 2	238.6207
A6119110202	AQ HOME Allin1 Gen 2	238.2376
A2118150101	AQ Master wired x1 Ms	0.892
A6818160201	AQ Pen Drive DRC	0.9011
A2118150101	AQ Master wired x1 Ms	0.9195
A6818160201	AQ Pen Drive DRC	0.9195
A2118150102	AQ Master wired x1 Ms	1.046

Insights

Result indicates the Manufacturing cost of products ranges from 0.8\$ to 240.53\$.

REQUESTS 6:

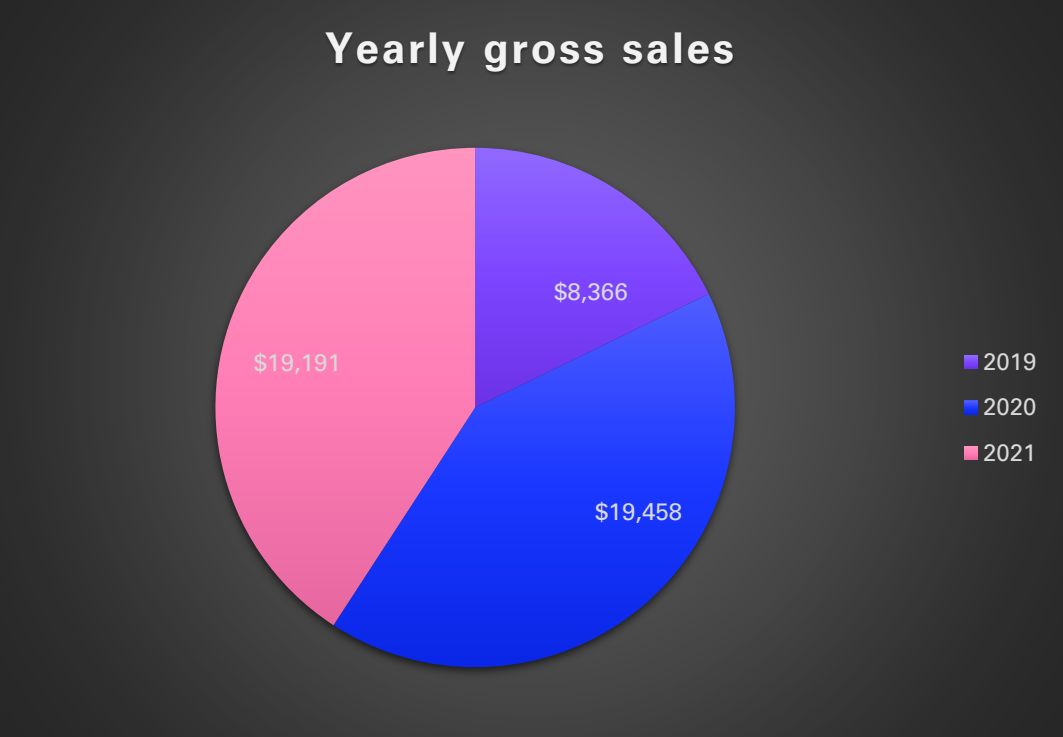
GENERATE A REPORT WHICH CONTAINS THE TOP 5 CUSTOMERS WHO RECEIVED AN AVERAGE HIGH PRE_INVOICE_DISCOUNT_PCT FOR THE FISCAL YEAR 2021 AND IN THE INDIAN MARKET. THE FINAL OUTPUT CONTAINS THESE FIELDS, CUSTOMER_CODE CUSTOMER AVERAGE_DISCOUNT_PERCENTAGE 7.

customer_code	customer	avg_discount_percentage
90002009	Flipkart	0.3083
90002006	Viveks	0.3038
90002003	Ezone	0.3028
90002002	Croma	0.3025
90002004	Vijay Sales	0.2753

Insights

Result shows the Top 5 customers with the highest average pre_invoice_discount_pct for the fiscal year 2021 in the Indian market

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



date	fiscal_year	gross_sales_amount
01-09-2019	2020	2610.85
01-10-2019	2020	762.29
01-11-2019	2020	3620.89
01-12-2019	2020	1372.13
01-01-2020	2020	3068.23
01-02-2020	2020	514.55
01-03-2020	2020	57.17
01-04-2020	2020	133.4
01-05-2020	2020	76.23
01-06-2020	2020	514.55
01-07-2020	2020	1410.24
01-08-2020	2020	762.29
01-09-2020	2021	4726.21
01-10-2020	2021	5660.02
01-11-2020	2021	914.75
01-12-2020	2021	1619.87
01-01-2021	2021	2267.82
01-02-2021	2021	3315.97
01-03-2021	2021	3068.23
01-04-2021	2021	686.06
01-05-2021	2021	3563.72
01-06-2021	2021	2344.05
01-07-2021	2021	3449.37
01-08-2021	2021	495.49

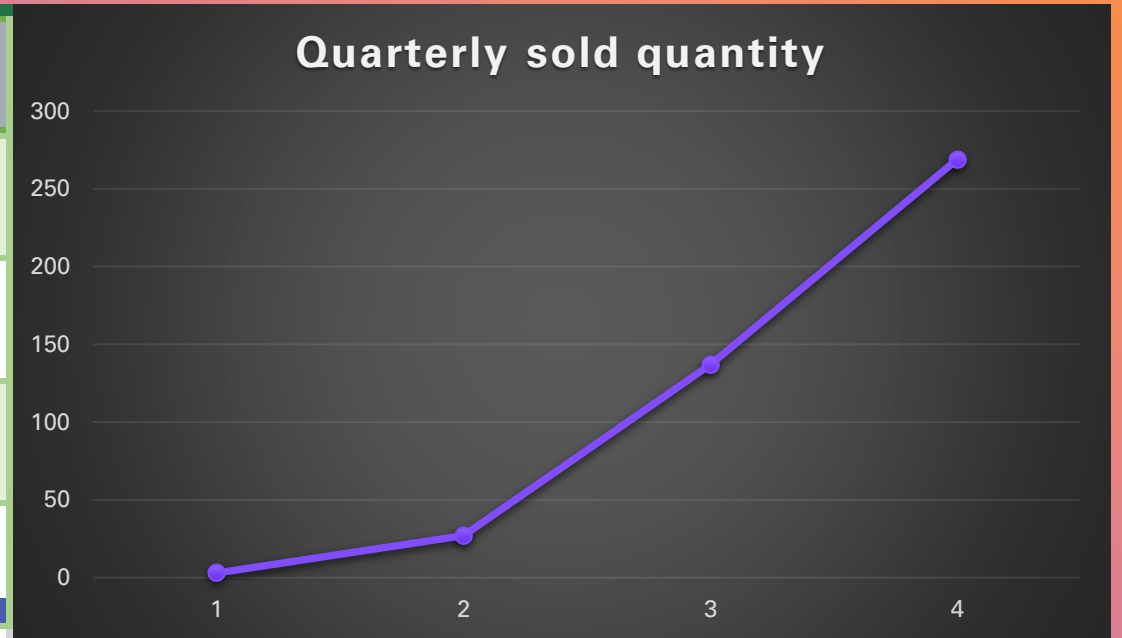
Insights

Result gives a report of gross sales for customer Atliq Exclusive this analysis helps management to understand seasonal trends which can also help Atliq hardware's to optimize its inventory management.

REQUESTS 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	sold_quantity
4	269
3	137
2	27
1	3



Insights

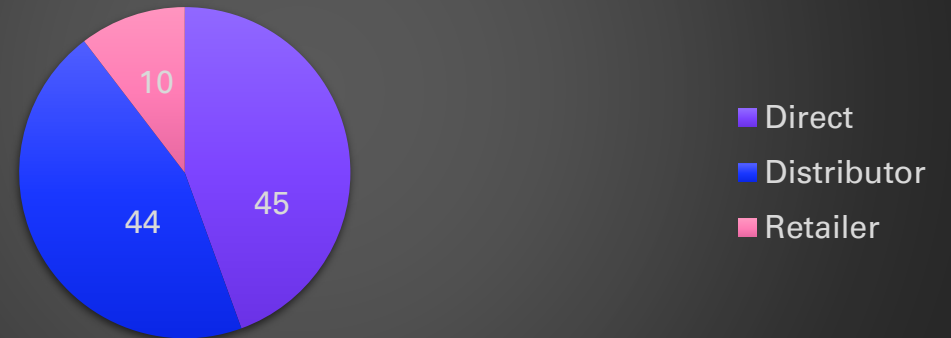
Results indicates that atliq hardware's sold less products in quarter 1 compared to quarter 4. this also shows that Atliq hardware is also updating on customers needs every quarter and meeting their requirements clearly.

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_total_price	percentage
Direct	4726.2104	44.44444444
Distributor	4802.4396	45.16129032
Retailer	1105.3234	10.39426523

Percentage of sales according to channels



Here I have Analyzed data by channel to understand the most effective sales channels, which also helps to optimize marketing strategies

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

Insights

Above table shows that division N&S has sold more products compared to PC and stood at rank 1 where pc division has less sales with the rank of 3.

SUMMARY



- Identified the markets in the APAC region in which Atliq Exclusive operates its business, which include Australia, China, India, Japan, South Korea, Malaysia, Philippines, Singapore, Taiwan, and Thailand.
- Calculated the percentage increase in unique products sold in 2021 compared to 2020 to identify trends in customer demand and potential opportunities for growth.
- Analyzed customer data by segment to identify unique product counts and sorted them in descending order to understand the most popular products for each segment.
- Identified the segment with the highest increase in unique products sold in 2021 compared to 2020 to optimize marketing and sales strategies for that segment.
- Identified the products with the highest and lowest manufacturing costs to optimize pricing strategies and increase profitability.
- Top 5 customers with the highest average pre_invoice_discount_pct for the fiscal year 2021 in the Indian market
- Analyzed customer data in the Indian market to identify the top 5 customers with the highest average pre_invoice_discount_pct in the fiscal year 2021 to optimize pricing strategies and increase customer loyalty.
- Analyzed sales data by month for Atliq Exclusive to understand seasonal trends and optimize inventory management.
- Identified the quarter of 2020 with the highest total_sold_quantity to understand trends in customer demand and optimize inventory management.
- Analyzed sales data by channel to understand the most effective sales channels and optimize marketing strategies.
- Analyzed product data by division to identify the top 3 products with the highest total_sold_quantity in the fiscal year 2021 to optimize inventory management and increase profitability.

THANK YOU

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https://github.com/chandan-nagaraju/Consumer_goods