**Insights and Recommendations:**

For this project, I am only considering the 5 questions to answer to keep it easier for viewers to read everything and get the overall idea.

(Only first row of each output is shown to keep everything limited)

**1) What is the percentage of unique product increase in 2021 vs. 2020?**

-- Unique Products 2020 = 245

-- Unique Products 2021 = 334

-- Percentage Change = 15.3713%

**Recommendations:**

* With a broader range of products, Atliq Hardwares can now target different market segments more effectively.
* The management should analyze customer data to identify specific segments showing the most potential for growth.
* Tailored marketing strategies and product positioning can then be developed to address the needs of these segments, thereby maximizing sales opportunities.
* With an increased product range, it's essential to optimize supply chain and operations processes to meet demand efficiently and minimize costs.

**2) Provide a report with all the unique product counts for each segment and sort them in descending order of product counts.**

-- The notebook category recorded the highest sales with 129 units, followed by accessories with 116 units, peripherals with 84 units, desktop with 32 units,

storage with 27 units, and networking with 9 units.

**Recommendations:**

* Atliq Hardwares should focus on further innovation and differentiation within this segment to maintain and potentially expand its market share.
* Atliq Hardwares could capitalize on this by offering bundled deals or promotions that encourage customers to purchase both laptops and related accessories together.

**3) Which segment had the most increase in unique products in 2021 vs 2020?**

-- Segment = Accessories

-- Unique Products 2020 = 69

-- Unique Products 2021 = 103

-- Difference = 34

**Recommendation:**

* Identify bestselling products, and capitalize on consumer demand by offering more innovative and diverse accessory options.

**4) 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.**

-- Customer Code = 90002009

-- Customer = Flipkart

-- pre\_invoice\_discount\_pct = 0.30830000%

**Recommendations:**

* These top customers are evidently receiving significant discounts, possibly indicating that they are high-volume purchasers or have negotiated favorable terms.
* Atliq Hardwares should maintain close relationships with these key customers to understand their needs better and potentially negotiate more sustainable pricing structures without sacrificing profitability.
* Analyzing which products these top customers purchase can reveal insights into product preferences and market demands. Atliq can tailor its product offerings or promotions to align better with these preferences, potentially boosting sales and customer satisfaction.

**5) In which quarter of 2021, got the maximum total\_sold\_quantity?**

-- Q4 = 17,447,125

-- Q3 = 11,024,794

-- Q2 = 10,831,277

-- Q1 = 10,861,386

**Recommendations:**

* The significant spike in sales during Q4 suggests that there might be seasonal factors influencing purchasing behavior.
* Analyzing why Q4 is particularly successful could reveal insights into consumer behavior, market trends, or promotional activities during that time.
* Understanding which products drove the sales surge in Q4 can provide valuable insights. This information can guide inventory management, marketing campaigns, and product development strategies.
* Assess the supply chain efficiency and capacity during Q4 to ensure that the increased demand was effectively met without compromising product quality or customer satisfaction.

**Tools / Skills used in the Project:**

-- CTEs (Common Table Expressions)

-- Conditional Statements

-- Aggregate Functions

-- Window Functions

-- Data Manipulation Functions

-- Joins