

AtliQ Hardware Sales and Financial Performance Report

Spurthi Karoshi

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About AtliQ Hardware

AtliQ Hardware is a prominent player in the global hardware industry, recognized for its commitment to excellence and innovation. Founded with a vision to deliver high-quality hardware products and services, AtliQ has established itself as a leader in providing reliable, cutting-edge solutions to a diverse customer base.



Company Overview

AtliQ Hardware specializes in manufacturing and distributing a wide range of hardware products, including electronic components, industrial machinery, and consumer electronics. The company's product portfolio is designed to meet the demands of both individual consumers and businesses, ensuring top-notch performance and durability.

Mission and Vision

AtliQ Hardware's mission is to enhance the operational efficiency and productivity of its clients through superior hardware solutions. The company strives to be a global leader in the hardware industry by continuously innovating and improving its product offerings. AtliQ's vision is to set new benchmarks in quality and reliability while expanding its market presence worldwide.

Tool and Methods

Microsoft Excel was the primary tool utilized for data analysis and report generation in this project. Excel's extensive features enabled detailed analysis and clear data presentation, supporting comprehensive insights and strategic decision-making.

1. Formulas and Tables:

- Formulas: Mastered foundational formulas such as SUM, AVERAGE, and COUNTIF to compute key metrics and perform calculations across datasets.
- Tables: Created structured tables for efficient data organization, management, and referencing.

2. Data Cleaning Techniques:

- Applied methods to clean and prepare data, ensuring accuracy and consistency by removing duplicates, correcting errors, and standardizing formats.

3. Basic Mathematics and Statistics:

- Calculated essential statistical measures including mean, median, mode, variance, standard deviation, and correlation to derive insights into data distribution and relationships.

4. Essential Business Metrics:

- Analyzed Profit & Loss (P&L) statements focusing on key metrics like net sales, cost of goods sold (COGS), and gross margin to understand financial performance.

5. Advanced Functions:

- Utilized powerful Excel functions such as VLOOKUP, INDEX MATCH, and XLOOKUP for efficient data handling and cross-referencing across multiple datasets.

6. Data Merging and Power Query Integration:

- Combined data from various sources to create cohesive datasets using Power Query for effective data management and transformation.

7. Report Creation and Power Pivot/DAX Basics:

- Developed detailed reports including tables, charts, and summaries to present findings, trends, and insights clearly.
- Gained introductory knowledge in Power Pivot and DAX for advanced data modeling and calculations.

Data Model and DAX Measures

Data Model

The data model used in the AtliQ Hardware project was designed to organize and manage data efficiently. It consisted of several tables, each representing a specific aspect of the company's data. These tables were linked by relationships, allowing for effective data analysis and report generation.

Tables and Relationships: The data model included tables such as Sales, Products, Customers, and Dates. Relationships were established using common fields like Product ID and Customer ID, allowing for meaningful insights by correlating data across various business aspects.

Data Integration and ETL: Power Query was used to import, clean, and merge data from multiple sources, ensuring a unified and accurate dataset. The creation of a date table and calculation of fiscal periods enabled time-based analysis.

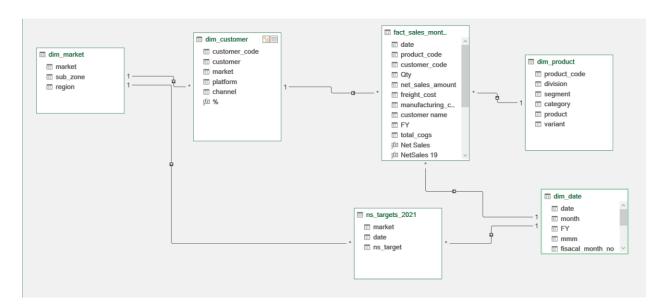


Figure: Data Model Diagram

Explanation:

- **Fact Table:** fact_sales_monthly
 - o Contains transactional data such as sales amounts, quantities, and costs.

• Dimension Tables:

- o dim_customer: Contains customer-related information, including customer code, name, market, platform, and channel.
- dim_product: Holds product-related details like product code, division, and category.
- dim_market: Captures market-related data such as market, sub-zone, and region.
- dim_date: Includes time-related data, which is crucial for performing time-series analysis.
- o ns_targets_2021: Stores sales targets for the year 2021.

In the data model, tables are connected using primary and foreign keys, which establish relationships between them. These relationships can be categorized as one-to-many or many-to-one, depending on the data structure.

One-to-Many Relationships

A one-to-many relationship occurs when a single record in one table is associated with multiple records in another table. For example:

• **Customer to Sales:** A single customer (represented in the dim_customer table) can have multiple sales transactions (recorded in the fact_sales_monthly table). The customer_code in the dim_customer table serves as the primary key, while the same field in the fact_sales_monthly table acts as a foreign key. This relationship allows us to analyze all sales associated with a specific customer.

• **Product to Sales:** Each product (in the dim_product table) can appear in multiple sales transactions (in the fact_sales_monthly table). The product_code acts as a unique identifier, enabling detailed sales analysis by product.

Many-to-One Relationships

Conversely, a many-to-one relationship exists when multiple records in one table correspond to a single record in another. For instance:

• **Sales to Market:** Multiple sales transactions (from the fact_sales_monthly table) can occur in the same market (recorded in the dim_market table). Here, the market field in both tables establishes the relationship.

Significance in Data Analysis

These relationships are crucial for comprehensive data analysis as they enable:

- 1. **Data Aggregation:** The one-to-many relationships allow for the aggregation of data, such as total sales per customer or product. This aggregation provides insights into customer behavior, product performance, and market trends.
- 2. **Dimensional Analysis:** The model supports slicing and dicing data by different dimensions, such as time, product, or customer. This capability helps in understanding the impact of various factors on sales and other key metrics.
- 3. **Consistency and Integrity:** By enforcing referential integrity, these relationships ensure data consistency and prevent anomalies. This integrity is vital for reliable analysis and reporting.
- 4. **Efficient Querying:** The relational structure allows for efficient querying and retrieval of data, as relationships enable quick access to related information across different tables.

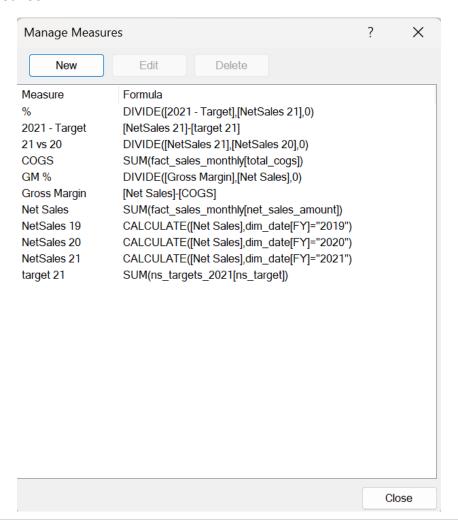
Overall, these relationships form the backbone of the data model, enabling a multidimensional view of the business and supporting informed decision-making.

DAX Measures

DAX (Data Analysis Expressions) measures were used extensively in the project to perform calculations and create advanced analytics. Some of the key measures included:

- Calculated Columns and Measures: DAX was used to create calculated columns and measures, which provided insights into key metrics. For example, measures like Total Sales, Gross Margin, and Profit Margin were calculated to analyze the company's financial performance.
- 2. **Advanced Calculations:** DAX enabled the use of advanced calculations, such as running totals, year-over-year growth, and dynamic aggregation based on filters. These measures facilitated the analysis of trends and patterns in the data, aiding in strategic decision-making.

List of Measures:



Explanation:

Here's a detailed explanation of each measure shown in the DAX Measures image:

1. Net Sales

- **Formula:** `SUM(fact_sales_monthly[net_sales_amount])`
- **Explanation:** This measure sums up the total net sales amount recorded in the 'fact_sales_monthly' table. It represents the total revenue generated from sales after deducting returns, allowances, and discounts.

2. Net Sales 19

- Formula: `CALCULATE([Net Sales], dim_date[FY] = "2019")`
- **Explanation:** This measure calculates the net sales for the fiscal year 2019. The `CALCULATE` function modifies the filter context, ensuring that only data from 2019 is considered. This measure is useful for year-over-year comparisons.

3. Net Sales 20

- Formula: `CALCULATE([Net Sales], dim_date[FY] = "2020")`
- **Explanation:** Similar to Net Sales 19, this measure calculates the net sales for the fiscal year 2020, allowing for comparisons with other years to analyze trends and performance.

4. Net Sales 21

- **Formula:** `CALCULATE([Net Sales], dim_date[FY] = "2021")`
- **Explanation:** This measure calculates the net sales for the fiscal year 2021. It provides the total revenue for the year, which can be compared with previous years or targets.

5.21 vs 20

- Formula: `DIVIDE([NetSales 21], [NetSales 20], 0)`
- **Explanation:** This measure compares the net sales of 2021 with 2020. It shows the growth or decline in sales year-over-year, expressed as a ratio. A value greater than 1 indicates growth, while a value less than 1 indicates a decline.

6. target 21

- Formula: `SUM(ns_targets_2021[ns_target])`
- **Explanation:** This measure sums up the sales targets for 2021. It represents the company's goal for net sales, serving as a benchmark for evaluating actual performance.

7. 2021 - Target

- Formula: `[NetSales 21] [target 21]`
- **Explanation:** This measure calculates the absolute difference between the actual net sales in 2021 and the target sales for that year. It provides insight into the sales performance by showing whether the company exceeded or fell short of its sales target.

8. % (Percentage)

- Formula: `DIVIDE([2021 Target], [NetSales 21], 0)`
- **Explanation:** This measure calculates the percentage difference between the actual net sales in 2021 and the target sales for the same year. The `DIVIDE` function is used to handle division safely, avoiding errors in cases where the denominator (`NetSales 21`) is zero. This measure helps in assessing how close the actual sales are to the target, expressed as a percentage.

9. COGS (Cost of Goods Sold)

- Formula: `SUM(fact_sales_monthly[total_cogs])`

- Explanation: This measure calculates the total cost of goods sold, which includes all costs directly tied to the production of the goods sold by the company. It is a crucial component for calculating gross margin and profitability.

10. Gross Margin

- Formula: `[Net Sales] - [COGS]`

- **Explanation:** This measure calculates the gross margin, which is the difference between net sales and the cost of goods sold. It represents the company's earnings before deducting indirect expenses, taxes, and other costs.

11. GM % (Gross Margin Percentage)

- Formula: `DIVIDE([Gross Margin], [NetSales], 0)`

- **Explanation:** This measure calculates the gross margin as a percentage of net sales. It provides a ratio that indicates how much of the sales revenue is retained as profit after deducting the cost of goods sold. It is a key indicator of financial health and efficiency.

The DAX measures outlined in this report are vital for understanding and analyzing the financial performance of the company. They provide key insights into sales trends, profitability, and target achievement. By comparing actual figures with targets and historical data, these measures help identify areas of strength and opportunities for improvement. They enable comprehensive data analysis, supporting strategic decision-making and ensuring that the company stays aligned with its financial goals. Overall, these measures are essential tools for driving business growth and maintaining financial health.

Skills and Competencies

This project has enabled me to acquire and refine several key skills, including:

Technical Skills:

- Expertise in ETL processes (Extract, Transform, Load).
- Capability to create a date table using Power Query.
- Proficiency in calculating fiscal months and quarters.
- Establishing relationships within data models using Power Pivot.
- Skill in integrating supplementary data into existing data models.
- Utilizing DAX for creating calculated columns and measures.

Soft Skills:

- In-depth understanding of Sales and Finance Reports.
- Designing user-focused reports with attention to detail.
- Streamlining report generation through careful optimization.
- Developing a methodical approach to report planning and execution.

Reports

Customer Net Sales Performance Report

Purpose: To assess the performance of individual customers and determine which has driven significant growth in net sales from 2019 to 2021, with a focus on the percentage increase from 2020 to 2021.

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FILTERS



region	All		Customer Net	
market	All		Sales Performance	
division	All		All values in USD	
Customer	2019	2020	2021	21 vs 20
Acclaimed Stores	1.4 M	2.9 M	10.9 M	378.1%
All-Out		0.2 M	0.8 M	495.7%
Amazon	12.2 M	37.5 M	82.1 M	218.9%
Argos (Sainsbury's)	0.4 M	0.7 M	2.3 M	306.0%
Atlas Stores	0.2 M	0.7 M	3.2 M	470.3%
Atliq e Store	7.2 M	23.7 M	53.0 M	223.8%
AtliQ Exclusive	9.6 M	17.7 M	61.1 M	345.8%
BestBuy	0.9 M	1.8 M	6.3 M	356.1%
Boulanger	0.2 M	0.8 M	4.1 M	492.9%
Chip 7	0.6 M	1.3 M	5.5 M	416.1%
Chiptec		0.4 M	3.0 M	722.0%
Control	0.9 M	2.2 M	7.7 M	349.2%
Coolblue	0.5 M	1.2 M	4.2 M	360.0%
Costco	1.1 M	2.8 M	9.3 M	337.4%
Croma	1.7 M	2.5 M	7.5 M	305.1%
Currys (Dixons Carphone)	0.3 M	0.8 M	1.9 M	246.9%
Digimarket	0.8 M	1.7 M	4.1 M	241.1%
Ebay	2.6 M	6.3 M	15.2 M	242.2%
Electricalsara Stores	0.1 M	0.6 M	1.9 M	286.0%
Electricalsbea Stores		0.1 M	0.7 M	504.6%
Electricalslance Stores	0.1 M	0.7 M	2.3 M	313.3%
Electricalslytical	1.8 M	2.6 M	11.9 M	457.5%
Electricalsocity	2.3 M	3.5 M	12.4 M	358.8%
Electricalsquipo Stores	0.2 M	0.7 M	3.6 M	535.3%
Elite	0.4 M	0.8 M	4.1 M	495.5%
Elkjøp	0.5 M	1.3 M	5.2 M	391.9%
Epic Stores	0.4 M	0.9 M	4.2 M	446.1%
Euronics	0.4 M	0.9 M	3.9 M	444.7%
Expert	0.8 M	1.8 M	6.4 M	364.0%
Expression	1.7 M	3.0 M	9.8 M	328.2%
Ezone	1.5 M	2.0 M	7.9 M	391.6%
Flawless Stores	0.1 M	0.5 M	1.8 M	396.3%
Flipkart	2.9 M	8.3 M		231.0%
Fnac-Darty	0.5 M	0.8 M		349.8%
Forward Stores	0.6 M	1.5 M		272.0%
Girias	1.5 M	2.1 M		419.3%
Info Stores	0.1 M	0.5 M		384.1%
Insight	0.4 M	1.0 M		271.8%
Integration Stores		0.2 M		887.2%

AtliQ Hardware



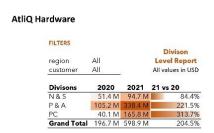
Leader	4.7 M	6.0 M	18.8 M	314.8%
Logic Stores	0.2 M	0.9 M		515.2%
Lotus	1.5 M	2.1 M	8.1 M	382.6%
Neptune	1.0 M	3.4 M		471.5%
Nomad Stores	0.5 M	1.6 M	4.0 M	246.9%
Notebillig	0.2 M	0.4 M	1.1 M	287.4%
Nova		0.0 M	0.4 M	2664.9%
Novus	1.9 M	3.7 M	9.9 M	264.2%
Otto	0.3 M	0.4 M	1.2 M	298.6%
Premium Stores	0.5 M	1.1 M	3.9 M	353.1%
Propel	1.6 M	2.5 M	10.8 M	440.6%
Radio Popular	0.5 M	1.5 M	5.3 M	362.6%
Radio Shack	0.8 M	1.7 M	5.4 M	311.5%
Reliance Digital	1.6 M	2.6 M	9.7 M	377.9%
Relief	0.4 M	1.0 M	4.1 M	403.6%
Sage	4.8 M	6.4 M	20.7 M	321.5%
Saturn	0.2 M	0.4 M	1.2 M	310.5%
Sorefoz	0.6 M	1.1 M	4.7 M	433.6%
Sound	0.6 M	1.7 M	4.4 M	260.3%
Staples	1.2 M	2.9 M	8.8 M	307.0%
Surface Stores	0.1 M	0.5 M	2.1 M	398.8%
Synthetic	1.9 M	4.4 M	12.2 M	276.0%
Taobao	0.2 M	1.3 M	3.3 M	248.7%
UniEuro	0.6 M	1.6 M	7.3 M	457.0%
Vijay Sales	1.7 M	2.1 M	8.5 M	397.8%
Viveks	1.6 M	2.2 M	7.8 M	348.1%
walmart	1.3 M	2.6 M	9.7 M	370.4%
Zone	0.3 M	1.6 M	5.3 M	336.2%
Grand Total	87.5 M	196.7 M	598.9 M	304.5%

Interpretation: The report indicates exceptional growth in sales for many customers, highlighting major contributors such as Amazon, Atliq e Store, and Electricalsquipo Stores. This suggests robust demand and effective sales strategies. The overall 304.5% increase in net sales underscores a thriving market and successful customer engagement strategies.

- **Strategic Focus:** Identify top-performing customers and prioritize maintaining and expanding these relationships.
- **Sales Strategy:** Replicate successful strategies from high-growth customers across other segments.
- **Resource Allocation:** Allocate resources and support to customers with high growth potential.

Division Level Report

Purpose: To evaluate the performance of different divisions (N & S, P & A, PC) and understand their contribution to the overall sales growth from 2020 to 2021.



Interpretation: The PC division shows the highest growth rate, followed by P & A and N & S. The overall 204.5% growth in net sales reflects the company's successful expansion and improved operational efficiency.

- **Performance Review:** Recognize and reward divisions with significant contributions.
- **Investment Decisions:** Consider further investment in high-growth divisions to leverage their success.
- **Operational Adjustments:** Address any challenges faced by divisions with slower growth rates.

Market Performance Report

Purpose: To analyze AtliQ Hardware's performance against targets in various countries for 2021 and identify regions where targets were not met.

FILTERS						
FILTERS		Market				
region	All			Performance vs Target		
division	All			All values in USD		
Country	2019	2020	2021	2021 - Target	%	
Australia	3.9 M	10.7 M	21.0 M	-2.2M	-9.59	
Austria		0.1 M	2.8 M	-0.3M	-10.59	
Bangladesh	0.5 M	2.3 M	7.0 M	-0.7M	-9.39	
Canada	4.8 M	12.2 M	35.1 M	-5.1M	-12.69	
China	1.4 M	5.4 M	22.9 M	-2.1M	-8.39	
France	4.0 M	7.5 M	25.9 M	-2.2M	-7.89	
Germany	2.6 M	4.7 M	12.0 M	-1.5M	-11.39	
India	30.8 M	49.8 M	161.3 M	-9.6M	-5.69	
Indonesia	2.5 M	6.2 M	18.4 M	-2.4M	-11.59	
Italy	2.9 M	4.5 M	11.7 M	-1.0M	-8.29	
Japan		1.9 M	7.9 M	-0.3M	-4.0	
Netherlands	0.2 M	3.4 M	8.0 M	-0.7M	-7.69	
Newzealand		2.0 M	11.4 M	-1.4M	-11.09	
Norway		2.5 M	13.7 M	-1.4M	-9.59	
Pakistan	0.6 M	4.7 M	5.7 M	-0.5M	-8.59	
Philiphines	5.7 M	13.4 M	31.9 M	-2.5M	-7 39	
Poland	0.4 M	2.8 M	5.2 M	-0.9M	-15.39	
Portugal	0.7 M	3.6 M	11.8 M	-0.5M	-4.1	
South Korea	12.8 M	17.3 M	49.0 M	-4.4M	-8.29	
Spain		1.8 M	12.6 M	-1.8M	12.49	
Sweden	0.1 M	0.2 M	1.8 M	-0.2M	-10.09	
United Kingdom	2.0 M	8.1 M	34.2 M	-3.0M	-8.09	
USA	11.5 M	31.9 M	87.8 M	-10.2M	-10.49	

Interpretation: The report shows that sales targets were missed in all listed countries, with notable shortfalls in Canada, Spain, and Indonesia. This suggests the need for revised strategies or interventions in these markets.

- Market Strategy: Reassess and refine strategies for underperforming regions.
- Target Setting: Set more realistic targets based on current market conditions.
- **Local Adjustments:** Implement localized marketing and sales strategies to address specific challenges.

Top 10 Products Report

Purpose: To highlight the sales performance and growth of the top 10 products from 2020 to 2021.

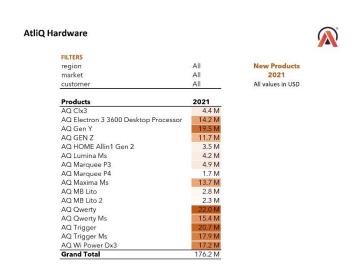
			(
FILTERS				
region	All		Top 10	
market	All		Products	
customer	All		All values in USD	
Products	2020	2021	21 vs 20	
AQ Electron 4 3600 Desktop Processor	3.0 M	19.4 M	541.3%	
AQ GT 21	0.8 M	4.4 M	461.1%	
AQ Home Allin1	0.7 M	5.2 M	669.0%	
AQ LION x1	0.0 M	0.8 M	1619.5%	
AQ LION x2	0.1 M	0.9 M	1668.9%	
AQ LION x3	0.1 M	1.2 M	1692.3%	
AQ Mx NB	0.0 M	1.4 M	5623.5%	
AQ Pen Drive DRC	0.6 M	3.8 M	487.7%	
AQ Smash 2	0.4 M	11.2 M	2489.5%	
AQ Zion Saga	0.7 M	3.6 M	428.5%	
Grand Total	6.4 M	52.0 M	708.0%	

Interpretation: The significant growth of top products such as AQ Mx NB and AQ Smash 2 indicates their strong market acceptance and effectiveness in driving sales. The overall 708.0% increase in sales for these products emphasizes their importance in the product portfolio.

- **Product Focus:** Continue to promote and innovate top-performing products.
- **Marketing Efforts:** Increase marketing efforts for high-growth products to sustain momentum.
- **Product Development:** Invest in the development of similar high-potential products.

New Products 2021 Report

Purpose: To evaluate the market reception and revenue contribution of new products introduced in 2021.



Interpretation: New products like AQ Gen Y and AQ Qwerty have generated substantial revenue, indicating successful market introduction and strong consumer demand.

- **Product Launch:** Use insights to guide future product launches and ensure successful market entry.
- **Resource Allocation:** Allocate resources to support the growth of new and promising products.
- **Customer Feedback:** Gather feedback on new products to drive further improvements.

Top Countries Report

Purpose: To identify the top five countries by net sales for AtliQ Hardware in 2021 and understand their contribution to overall revenue.

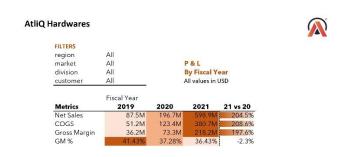


Interpretation: India, the USA, South Korea, Canada, and the UK are the top markets, highlighting their importance in the company's revenue stream. These countries represent key growth opportunities and areas of focus.

- **Market Prioritization:** Focus on maintaining and expanding presence in topperforming countries.
- **Growth Strategies:** Develop targeted strategies to enhance performance in these key markets.
- **Local Partnerships:** Strengthen partnerships and distribution channels in these countries.

Profit & Loss Yearly Report

Purpose: To analyze the annual financial performance of AtliQ Hardware, focusing on net sales, cost of goods sold (COGS), gross margin, and gross margin percentage (GM %).

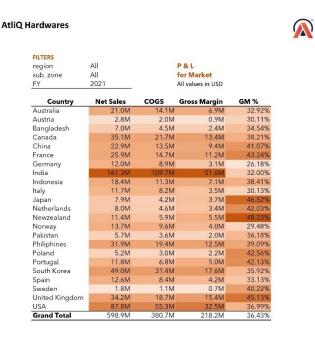


Interpretation: Substantial growth in net sales and gross margin, despite a slight decrease in gross margin percentage, indicates effective sales performance but also rising costs.

- **Cost Management:** Implement strategies to control COGS and improve gross margin percentage.
- **Financial Planning:** Use financial performance data to inform budgeting and financial forecasting.
- **Profitability Analysis:** Assess profitability to optimize pricing and cost structures.

Profit & Loss by Country Report

Purpose: To break down P & L data by market for 2021, offering insights into net sales, COGS, gross margin, and gross margin percentage for each country.

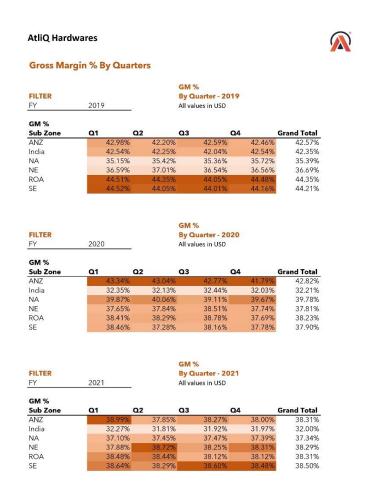


Interpretation: High gross margin percentages in markets like New Zealand and Japan contrast with lower margins in high-revenue countries like India. This suggests regional variations in profitability.

- **Market Optimization:** Focus on improving profitability in lower-margin countries.
- **Cost Efficiency:** Explore cost-reduction opportunities in high-revenue but low-margin markets.
- **Regional Strategies:** Develop region-specific strategies to enhance overall profitability.

Gross Margin Percent by Quarters Report

Purpose: To track gross margin percentages across quarters from 2019 to 2021, identifying trends and fluctuations in different sub-zones.



Interpretation: Gross margins have fluctuated across sub-zones, with noticeable declines in India. This indicates varying cost pressures and market conditions.

- **Quarterly Reviews:** Conduct quarterly reviews to monitor and address margin fluctuations.
- **Performance Improvement:** Identify and mitigate factors contributing to margin declines in specific regions.
- **Strategic Planning:** Adjust strategies based on quarterly margin trends to maintain profitability.

Conclusion

The overall analysis of the various reports indicates that AtliQ Hardware has experienced significant growth in net sales, and the introduction of new products has been highly successful. However, there are areas that require attention, such as achieving sales targets in certain countries, managing the cost of goods sold to improve gross margins, and addressing regional disparities in profitability. By focusing on these areas, AtliQ Hardware can enhance its market position and financial performance further.