

Sales and Finance Analysis of AtliQ Hardware



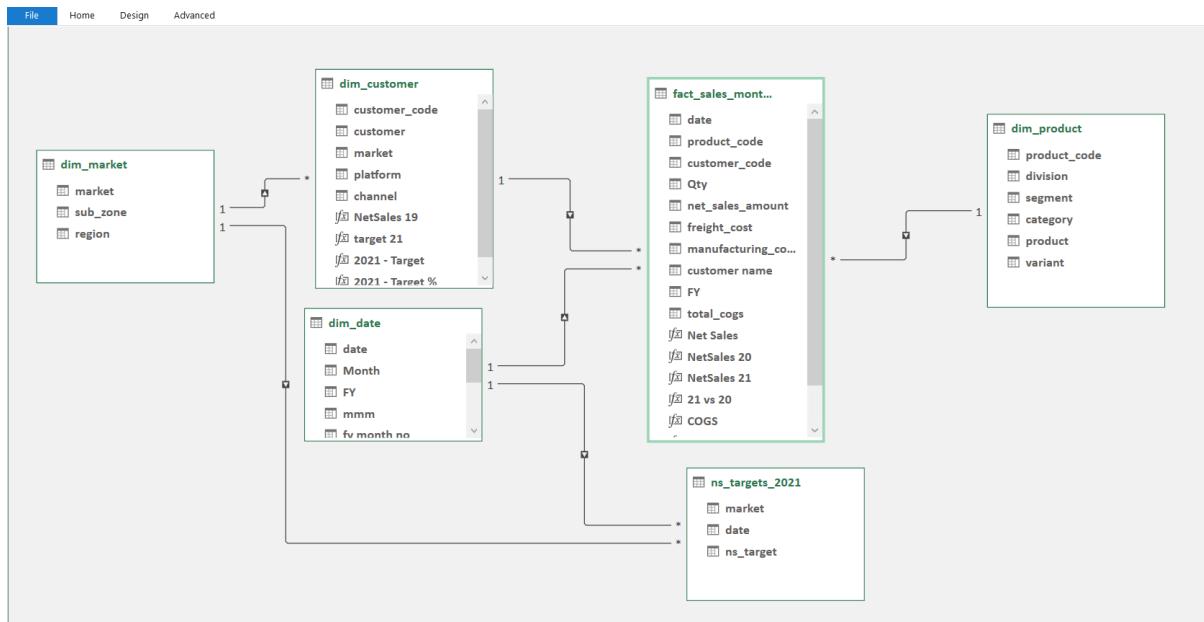
Business Problem

AtliQ Hardware, a leading hardware manufacturing company, was facing challenges due to scattered and unorganized sales and finance data spread across multiple Excel files. This fragmented data management resulted in:

- **Inefficient data retrieval:** Delays in accessing critical information.
- **Inconsistent insights:** Lack of accurate and reliable analysis for decision-making.
- **Missed opportunities:** Inability to identify key trends and patterns in sales and financial performance.

Why it's important: Streamlining this data is crucial for improving decision-making, identifying growth opportunities, and maintaining a competitive edge in the market.

Data Model:



ETL Process

1. Extract

- **Data Sources:** Collected sales and finance data from multiple Excel files provided by AtliQ Hardware.

2. Transform

- **Data Cleaning and Standardization:**
 - Used Power Query to clean messy data.
 - Standardized formats to ensure uniformity across datasets.
 - Removed duplicates, handled missing values, and corrected data inconsistencies.

3.Load

- **Data Modelling:**
 - Built a unified data model using Power Pivot.
 - Established relationships between datasets, including:
 - Sales
 - Product Categories
 - Regions
 - Finance Data

Step 1: listed down components needed to make the report.

Step 2: Find out that components in the files provided.

Step 3: write down where that components belong in which file.

Step 4: connect tables.

Data modelling involves the process of connecting different data sets together by establishing the relationships between them.

Step 5: created new table dim_date using power query to get the year component for my report.

1. Open a blank query in Power Query of Power BI
2. type = {Number.From(#date(2018,9,1))..Number.From(#date(2021,8,1))} [you can change specific start and end date according to your data]
3. That will generate a series of numbers as a list
4. Convert it to a table (upper left menu button).
5. Convert the ABC123 type to date
6. Rename to Date.
7. Now you have a date table. Add columns as necessary (year, month, month name, etc) to make your date table suit your needs.
8. Close and load.

9. Right-click on it and mark it as a date table.

Step 6: Add month column in dim_date: click on add column > date > start of Month then rename the column as month.

Step 7: Add month column in dim_date: click on add column > date > year>year then rename the column as month. [this will extract year from the date column].

Step 8: change the type of year column from number → Text.

What is a Fiscal Year?

A fiscal year (or financial year) is a 12-month period used by businesses, governments, and organizations for accounting, budgeting, and reporting purposes. It does not necessarily align with the calendar year (January to December) and can begin and end on any chosen dates.

- **Example:** A fiscal year could run from April 1 to March 31 or October 1 to September 30, depending on the organization's preference or jurisdictional requirements.

Difference Between Fiscal Year and Calendar Year

Aspect	Fiscal Year	Calendar Year
Definition	A 12-month accounting period that can start and end in any month	A fixed 12-month period starting January 1 and ending December 31
Start and End	Can begin and end on any dates (e.g., April 1–March 31, October 1–September 30)	Always starts on January 1 and ends on December 31
Purpose	Used for financial reporting, tax filing, and budgeting based on organizational needs	Standardized for societal, personal, and general timekeeping
Usage	Common in businesses, governments, and specific industries like education or agriculture	Used universally as a global standard
Examples	India: April 1 – March 31, US Government: October 1 – September 30	January 1 – December 31 everywhere

Why Organizations Use Fiscal Years?

- Align with industry cycles (e.g., agriculture, retail, or education sectors).
- Manage seasonal fluctuations in revenue or operations.
- Align with government reporting periods.

How to get fiscal year from Calendar year?

Step 1: go to Add column> custom column

Use formula: =date.addmonths([month],4) [this will give fiscal month]

Step 2: go to Add column> custom column

Use formula: =date. Year ([FY month]) [this will give fiscal Year]

how company can use customer performance report to improve sales?

A customer performance report provides insights into customer behavior, preferences, and purchase patterns. Companies can use this data to identify trends, optimize strategies, and ultimately improve sales. Here's how:

1. Identify High-Value Customers

- Use the report to pinpoint top-performing customers based on purchase volume, frequency, and revenue contribution.
 - Focus on retaining these customers through personalized offers, loyalty programs, or exclusive deals.
-

2. Segment Customers for Targeted Marketing

- Analyze customer demographics, behavior, and preferences to create segments (e.g., based on age, location, or buying habits).
 - Develop targeted marketing campaigns for each segment to increase engagement and sales.
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3. Cross-Selling and Upselling Opportunities

- Study purchase patterns to recommend complementary or higher-value products.
 - For example, if a customer buys a laptop, suggest accessories like a laptop bag or extended warranty.
-

4. Improve Customer Retention

- Identify customers with declining performance (reduced purchases or engagement).
 - Implement retention strategies, such as personalized discounts, follow-up communications, or feedback collection.
-

5. Optimize Product Offerings

- Evaluate which products or services are popular among customers and focus on stocking or promoting those.
 - Discontinue or improve products with low sales performance.
-

6. Tailor Promotions and Discounts

- Use customer spending habits and preferences to design personalized promotions.
 - Example: Offer discounts on favourite products to increase purchase likelihood.
-

7. Predict Future Trends

- Analyse historical customer data to forecast demand and adjust inventory or marketing strategies.
 - Stay ahead of seasonal trends or upcoming customer needs.
-

8. Enhance Customer Experience

- Use feedback and performance data to identify pain points (e.g., long delivery times or poor service).
 - Address these issues to improve satisfaction, leading to higher customer loyalty and sales.
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9. Leverage Referral Programs

- Identify loyal customers who could be potential advocates for your brand.
 - Create referral incentives to encourage them to bring in new customers.
-

10. Monitor the Success of Marketing Campaigns

- Use customer performance reports to track the effectiveness of campaigns.
- Refine strategies based on what resonates most with different customer groups.

What is Annual Sales Agreement?

An Annual Sales Agreement (ASA) is a long-term contract between a company and its customers or distributors, like Croma, Amazon, or other large retailers, outlining the terms and conditions for selling products or services over a year. When applied to exclusivity deals and discounts, the agreement fosters mutual benefits while securing a consistent sales pipeline for the company.

1. Exclusivity Deal

An exclusivity agreement within the ASA ensures that the customer (e.g., Croma or Amazon) gets exclusive rights to sell a particular product or brand. This creates a strategic advantage for both parties.

Key Features:

- **Product Exclusivity:** The product is sold only through the designated partner (e.g., Amazon becomes the exclusive online retailer for a product).
- **Market Differentiation:** Retailers gain a competitive edge by offering products unavailable to competitors.
- **Minimum Purchase Requirements:** The retailer agrees to purchase a certain quantity annually to maintain exclusivity.

Benefits to the Company:

- Builds brand reputation with a premium feel.
- Guarantees stable revenue through bulk sales.
- Simplifies inventory and distribution by partnering with fewer retailers.

Benefits to the Retailer:

- Drives customer traffic as the exclusive seller of a product.
 - Enhances customer loyalty and market share.
-

2. Discounts and Incentives

The ASA often includes a structured discount or incentive program for customers like Croma or Amazon to encourage large-volume purchases and foster long-term collaboration.

Types of Discounts:

- **Volume-Based Discounts:** Retailers get higher discounts for buying in bulk.
Example: A 10% discount for purchases above ₹10 lakh in a quarter.
- **Tiered Pricing:** Discounts are offered at different levels of sales targets. For instance:
 - ₹50,00,000 sales = 5% discount
 - ₹1 crore sales = 10% discount.
- **Promotional Discounts:** Retailers are offered special discounts during festive seasons or new product launches to boost sales.
- **Year-End Rebates:** Additional discounts or cash-back incentives are given if the retailer achieves or exceeds the agreed annual sales target.

Benefits to the Company:

- Drives large upfront sales volumes, improving cash flow.
- Increases product visibility and availability in key retail channels.
- Builds stronger partnerships with large retailers.

Benefits to the Retailer:

- Increases profit margins through better pricing.
- Encourages participation in marketing and promotions with lower cost risks.
- Strengthens their ability to offer competitive prices to consumers.

3. Marketing and Co-Branding Support

To complement exclusivity and discounts, ASAs often include joint marketing initiatives, where companies share the cost of advertising campaigns or promotions with their retail partners.

Examples:

- **Amazon:** The company might fund "Amazon-exclusive" product banners and ad placements on the platform.
- **Croma:** Offers in-store branding, demo kiosks, or exclusive launch events for the product.

4. Example in Practice

Imagine a smartphone company entering an ASA with Amazon:

- **Amazon gets exclusive rights to sell the company's flagship model online for one year.**
 - **The company offers tiered discounts based on the sales volume Amazon achieves (e.g., 10% for 50,000 units, 15% for 100,000 units).**
 - **The agreement includes a marketing budget to run Amazon-exclusive campaigns, such as "Deal of the Day."**
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5. Challenges to Consider

- **Overdependence:** Relying too much on a single retailer can reduce market reach.
- **Stock Risks:** Retailers may demand high discounts on unsold inventory.
- **Negotiation Complexity:** Balancing exclusivity and competitive pricing with other retail partners can be challenging.

By crafting an effective ASA with exclusivity and discounts, companies can drive substantial sales, create a premium brand presence, and foster long-term partnerships with large retailers. Would you like help drafting such agreements or creating a strategy for a specific industry.

Creating customer performance report

Step 1: click on insert>pivot table > from data model

This is the mock-up for the customer performance report

Region				
Country				
Division				
Customer	2019	2020	2021	2021 vs 2020



Step 2: drag and drop fields according to the requirements.

Step 3: removed row-wise grand total by going to: Design > Grand Totals > off for columns only

Step 4: create a new measure for net sales to include in same pivot table: go to power pivot > measures > new measures

Formula: =CALCULATE ([Net Sales], dim_date[FY]="2019") [category : currency , symbol : \$ or ₹].

Step 5: repeat step 4 with the modified formula: =CALCULATE ([Net Sales], dim_date[FY]="2020") [category : currency , symbol : \$ or ₹].

Step 6: repeat step 4 with the modified formula: =CALCULATE ([Net Sales], dim_date[FY]="2021") [category : currency , symbol : \$ or ₹].

Step 7: repeat step 4 with the modified formula: =DIVIDE ([NetSales 21],[NetSales 20],0) [category : number , format : percentage to show growth percentage] .

Created all the measures from step 4 to 7 in fact_sales_monthly table.

Step 8: made the sales number more readable. By going to that column in pivot table fields> clicking on 2019 column in values then go to value field settings > number format > custom and type 0.00,"M" in type to convert in million with 2 decimals.

Step 9: repeat step 8 for 2020 & 2021 as well.

Step 10: remove grid lines by going to: view>grid lines.

Step 11: add header [company name and logo].

Step 12: change font of entire pivot table by going to: any one cell of pivot table > pivot table analyze > select > entire pivot table then go to home and change the font, font size according to requirements.

Step 13: create a custom table design according to the need.

Step 14: colour formatting data in the column 2019,2020 & 2021 by selecting it and then going to: home > conditional formatting > new rule and adjust according to the need.

Step 15: add report name below the header to make it more professional and easily understand what this report talks about.

Market performance vs target report

This is the mock-up for the report

Region	Country	Division				
Country	2019	2020	2021	2021 - Target	2021 - Target %	
	Net Sales	Net Sales	Net Sales			

Business Outcomes of Market Performance vs Target Report

- 1. Performance Insights:** Identify gaps between actual performance and targets to understand strengths and areas for improvement.
- 2. Enhanced Decision-Making:** Make data-driven decisions to adjust strategies for underperforming markets or products.
- 3. Target Achievement:** Refocus efforts on lagging areas to meet sales or revenue targets efficiently.
- 4. Resource Optimization:** Allocate resources, such as budgets or workforce, to high-potential markets or regions.
- 5. Sales Team Accountability:** Monitor team performance against targets and encourage accountability through clear benchmarks.
- 6. Forecasting Accuracy:** Use insights to improve future sales and target-setting processes.
- 7. Competitive Edge:** Benchmark against competitors and refine strategies to outperform in weak markets.
- 8. Profitability Growth:** Align efforts with high-performing markets to maximize profitability and ROI.

Step 1: copy the customer net sales performance report for same formatting and reuse some fields.

Step 2: add target data.

Step 3: connect it to data model.

Measures used in report and formulas used to derive it

Net Sales	SUM(fact_sales_monthly[net_sales_amount])
NetSales 19	CALCULATE([Net Sales].dim_date[FY]="2019")
NetSales 20	CALCULATE([Net Sales].dim_date[FY]="2020")
NetSales 21	CALCULATE([Net Sales].dim_date[FY]="2021")
target21	SUM(ns_targets_2021[ns_target])

Measure	Formula
%	DIVIDE([2021 - Target],[NetSales 21],0)
2021 - Target	[NetSales 21]-[target21]

Step 4: made the sales 2021- Target number more readable. By going to that column in pivot table fields> clicking on 2019 column in values then go to value field settings > number format > custom and type 0.00,"M" in type to convert in million with 2 decimals.

Step 5: create a custom table design according to the need.

Step 6: colour formatting data in the column 2019,2020 & 2021 by selecting it and then going to: home > conditional formatting > new rule and adjust according to the need.

Step 7: add report name below the header to make it more professional and easily understand what this report talks about.

Division Level Report

Business Outcomes of Creating a Division-Level Report

- 1. Performance Tracking:** Measure the performance of each division to identify top performers and underperformers.
- 2. Informed Decision-Making:** Enable data-driven decisions by understanding division-specific trends and challenges.
- 3. Resource Allocation:** Allocate budgets, manpower, and resources more efficiently based on division performance.
- 4. Accountability:** Promote transparency and accountability among divisions with clear performance metrics.
- 5. Growth Opportunities:** Identify high-potential divisions for expansion or investment.
- 6. Strategic Alignment:** Ensure each division's goals are aligned with the overall organizational objectives.
- 7. Improved Collaboration:** Foster inter-division collaboration by sharing best practices and addressing gaps.
- 8. Profitability Focus:** Concentrate efforts on improving division-level profitability for overall business growth.

Division-level reports empower organizations to optimize operations and align performance with strategic goals effectively.

Step 1: copy the customer net sales performance report for same formatting and reuse some fields.

Step 2: drag and drop fields according to the need.

Step 3: add report name below the header to make it more professional and easily understand what this report talks about.

Top & Bottom 5 Products report

Business Outcomes of Creating a Top & Bottom 5 Products Report

- 1. Focus on High Performers:** Prioritize marketing, production, and inventory for the top 5 products to maximize revenue and profitability.
- 2. Address Underperformers:** Identify and analyze the bottom 5 products to improve their performance or phase them out.
- 3. Inventory Optimization:** Ensure proper stock levels for high-demand products while reducing excess inventory of low-performing ones.
- 4. Strategic Decision-Making:** Use insights to refine pricing, promotions, and product development strategies.
- 5. Customer Preferences:** Understand customer demand trends and preferences for better product alignment.
- 6. Resource Allocation:** Allocate resources such as advertising budgets to maximize ROI on top-performing products.
- 7. Profitability Improvement:** Eliminate or improve bottom products to enhance overall product portfolio profitability.
- 8. Market Adaptation:** Quickly adapt to market trends by focusing on what sells and addressing gaps in weak-performing products.

This report helps businesses drive growth by leveraging strong products and mitigating risks associated with weaker ones.

Step 1: copy the customer net sales performance report for same formatting and reuse some fields.

Step 2: drag and drop fields according to the need.

Step 3: add report name below the header to make it more professional and easily understand what this report talks about.

New_Products_2021 report

Business Outcomes of Creating a New_Products_2021 Report

- 1. Performance Evaluation:** Assess the success of newly launched products by analyzing sales, revenue, and customer feedback.
- 2. Market Trend Insights:** Identify trends and customer preferences based on the performance of new products.
- 3. Product Strategy Optimization:** Refine future product development, pricing, and marketing strategies using data-driven insights.
- 4. Resource Allocation:** Allocate budgets and resources effectively for scaling successful products or improving underperforming ones.
- 5. Risk Mitigation:** Identify weak-performing products early and implement corrective actions to minimize losses.
- 6. Customer Acquisition:** Analyze how new products contribute to attracting and retaining customers.
- 7. Profitability Analysis:** Determine the ROI and profitability of each product to prioritize high-performing ones.

8. Innovation Feedback: Use performance data to guide future innovations and launches.

This report helps organizations understand the impact of new products and refine their approach to maximize success.

Step 1: copy the customer net sales performance report for same formatting and reuse some fields.

Step 2: drag and drop fields according to the need.

Step 3: add report name below the header to make it more professional and easily understand what this report talks about.

Top 5 countries Report

Business Outcomes of a "Top 5 Countries Report"

- 1. Optimized Resource Allocation – Focus on high-performing regions to maximize ROI.**
- 2. Market Expansion Insights – Identify potential areas for growth and investment.**
- 3. Customer Behavior Analysis – Understand preferences to tailor strategies.**
- 4. Performance Benchmarking – Set realistic goals using top regions as benchmarks.**
- 5. Strategic Focus – Streamline efforts toward profitable markets.**
- 6. Risk Mitigation – Reduce over-reliance on specific regions and plan for contingencies.**

Step 1: copy the customer net sales performance report for same formatting and reuse some fields.

Step 2: drag and drop fields according to the need.

Step 3: add report name below the header to make it more professional and easily understand what this report talks about.

p_and_l_by_year_report

new measures with formulas used to derived it

COGS	SUM(fact_sales_monthly[total_cogs])
GM %	DIVIDE([Gross Margin].[Net Sales],0)
Gross Margin	[Net Sales]-[COGS]

Business Outcomes of a "P&L by Year" Report

- 1. Financial Performance Tracking – Analyze profit and loss trends over the years.**
 - 2. Strategic Budgeting – Identify areas of cost optimization and revenue growth.**
 - 3. Goal Alignment – Compare yearly performance against targets and forecasts.**
 - 4. Profitability Insights – Pinpoint the most profitable revenue streams and cost drivers.**
 - 5. Decision-Making Support – Provide a foundation for informed strategic decisions.**
 - 6. Trend Analysis – Spot recurring patterns to anticipate future financial outcomes.**
 - 7. Stakeholder Communication – Present clear and concise financial performance to stakeholders.**
-
- A P&L (profit and loss) statement is a financial report that provides an overview of a company's financial performance over a period of time, typically a month, quarter, or year.

This is the mock-up for the report

Region				
Country				
Division				
Customer				
Metric	2019	2020	2021	2021 vs 2020
Net Sales				
COGS				
Gross Margin				
GM %				

terms related to P&l statement:

1. Net Sales

The total income earned from the sale of goods or services before deducting any expenses.

2. Cost of Goods Sold (COGS)

- **The direct costs of producing goods or services sold by the company.**

3. Gross Margin

- **Gross Margin is a key financial metric that shows the difference between net sales and cost of goods sold (COGS). It represents the percentage of revenue that exceeds the direct costs involved in producing goods or services. Gross margin indicates how efficiently a company is producing and selling its products.**

$$\text{Gross Margin} = \text{net sales} - \text{COGS}$$

$$\text{Gross Margin \%} = \frac{\text{gross margin}}{\text{net sales}} \times 100$$

Step 1: import the required data in excel workbook.

Step 2: copy the customer net sales performance report for same formatting and reuse some fields.

Step 3: created total_cogs using formula =fact_sales_monthly[freight_cost] +fact_sales_monthly[manufacturing_cost].

Step 4: created new measure COGS.

Step 5: created new measure Gross Margin.

Step 6: created new measure Gross Margin %.

Step 7: made the number more readable. By going to that column in pivot table fields> clicking on 2019 column in values then go to value field settings > number format > custom and type 0.00,"M" in type to convert in million with 2 decimals.

Step 8: used =IFERROR(E10/D10-1,"") for the 2021 vs 2020 growth percentage.

Step 9: drag and drop fields according to the need.

Step 10: colour formatting data in the column 2019,2020 & 2021 by selecting it and then going to: home > conditional formatting > new rule and adjust according to the need.

Step 11: add report name below the header to make it more professional and easily understand what this report talks about.

p_and_l_by_month_report

Business Outcomes of a P&L by Month Report

1. **Real-Time Financial Insight** – Quick identification of issues or opportunities.
 2. **Improved Cash Flow Management** – Ensures healthy liquidity and prevents cash shortages.
 3. **Budget Adherence** – Monitors actual performance vs. budget to control variances.
 4. **Trend Analysis** – Identifies seasonal patterns and forecasts future needs.
 5. **Cost Control** – Tracks expenses to identify areas for cost-cutting.
 6. **Decision Support** – Provides data for short-term operational decisions.
 7. **Performance Benchmarking** – Compares monthly results to track growth or decline.
 8. **Timely Stakeholder Communication** – Ensures accurate and transparent reporting.
 9. **Tax Planning** – Facilitates timely tax compliance and planning.
 10. **Strategic Adjustments** – Enables prompt action to address financial challenges.

This is the mock-up for the report

Region	North America	Europe	Asia Pacific	Middle East & Africa
Country	USA	UK	China	Saudi Arabia
Division	Product A	Product B	Product C	Product D
Customer	Customer 1	Customer 2	Customer 3	Customer 4
FY	2020	2021	2022	2023
	Q1	Q2	Q3	Q4
	Sep	Oct	Nov	Dec
	Jan	Feb	Mar	Apr
	May	Jun	Jul	Aug
Metric	Revenue	Profit Margin	Gross Margin	Net Profit
Net Sales	1000	800	900	700
COGS	600	500	650	450
Gross Margin	400	300	250	250
GM %	40%	37.5%	27.8%	35.7%

In the business domain, a quarter refers to a three-month period within a fiscal year, commonly used for financial reporting and analysis. Businesses typically break down the year into four quarters.

Q1			Q2			Q3			Q4		
SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG
1	2	3	4	5	6	7	8	9	10	11	12

Step 1: added months column in dim_date table

formula used: =FORMAT([date],"MMM")

Step2: added FY_month column

Formula used: =MONTH(DATE(YEAR([date]), MONTH([date]) +4, 1))

Step 3: added Quarter column

Formula used: ="Q" & ROUNDUP([fy_month_no]/3,0)

Step 4: copy the customer net sales performance report for same formatting and reuse some fields.

Step 5: drag and drop fields according to the need.

Step 6: colour formatting data in the column 2019,2020 & 2021 by selecting it and then going to: home > conditional formatting > new rule and adjust according to the need.

Step 7: add report name below the header to make it more professional and easily understand what this report talks about.

Step 8: copy entire pivot table once again and set fiscal year filter to 2020

Step 9: copy entire pivot table once again and set fiscal year filter to 2021

Step 10: create a table for net sales comparison for year 2021 vs 2020 using minus function of excel.

Step 11: create a table for net sales comparison for year 2020 vs 2019 using minus function of excel.

P&L_For_Markets_Report

Business Outcomes of a P&L for Markets Report

- 1. Market Profitability Insights** – Identify the most and least profitable markets.
- 2. Cost Optimization** – Pinpoint markets with high expenses to reduce inefficiencies.
- 3. Revenue Growth Opportunities** – Focus on markets with strong revenue potential.
- 4. Resource Allocation** – Allocate budgets and resources effectively based on market performance.
- 5. Strategic Decision-Making** – Enable targeted strategies for underperforming or high-growth markets.
- 6. Performance Benchmarking** – Compare market performance to set benchmarks and goals.
- 7. Risk Mitigation** – Diversify efforts away from over-reliance on specific markets.
- 8. Stakeholder Reporting** – Provide clear insights to stakeholders for better communication.

Step 1: copy the customer net sales performance report for same formatting and reuse some fields.

Step 2: drag and drop fields according to the need.

Step 3: add report name below the header to make it more professional and easily understand what this report talks about.

GM% by Quarters (sub_zone)_report

Business Outcomes of a GM% by Quarters (Sub-Zone) Report

- 1. Profitability Insights – Identify high and low-margin sub-zones across quarters.**
- 2. Trend Analysis – Detect seasonal or quarterly variations in gross margin performance.**
- 3. Strategic Focus – Focus efforts on sub-zones with consistent GM% growth or potential improvement.**
- 4. Cost Optimization – Highlight sub-zones with declining margins to address cost inefficiencies.**
- 5. Revenue Quality Evaluation – Assess the quality of revenue streams contributing to gross margin.**
- 6. Performance Benchmarking – Compare sub-zones to identify best practices and replicate success.**
- 7. Resource Allocation – Allocate resources to high-margin sub-zones for better ROI.**
- 8. Stakeholder Communication – Provide a clear picture of regional profitability to stakeholders.**

Step 1: copy the customer net sales performance report for same formatting and reuse some fields.

Step 2: drag and drop fields according to the need.

Step 3: add report name below the header to make it more professional and easily understand what this report talks about.