Business Insight 360

Company: AtliQ Hardware

By: Md Sufiyan Nagaralli

Agenda

Introduction

About the Company

Problem and Objective

Company Model and Data Model

Dashboard

Key Measures

Introduction

Welcome to Project Business Insight 360, where I create a comprehensive Power BI dashboard to drive data-driven decision-making at AtliQ

Hardware. By offering critical insights into financial performance, market trends, Supply chain ,Executive view and operational efficiency.

This dashboard will empower the company to make informed strategic choices, optimize operations, and enhance profitability. This initiative is vital for AtliQ Hardware to stay competitive, strengthen its market position, and ensure future success.

About the Company

AtliQ Hardware is a fast-growing company that has expanded its business worldwide. Specializing in computers and accessories, AtliQ has quickly become a global force in the tech industry. The company offers a wide range of products, including high- performance desktops, laptops, servers, and essential peripherals like keyboards, mice, monitors, and storage devices. With a strong international distribution network and strategic industry

partnerships, AtliQ ensures its products are available to customers everywhere, making it a trusted name in the tech world.

Problem

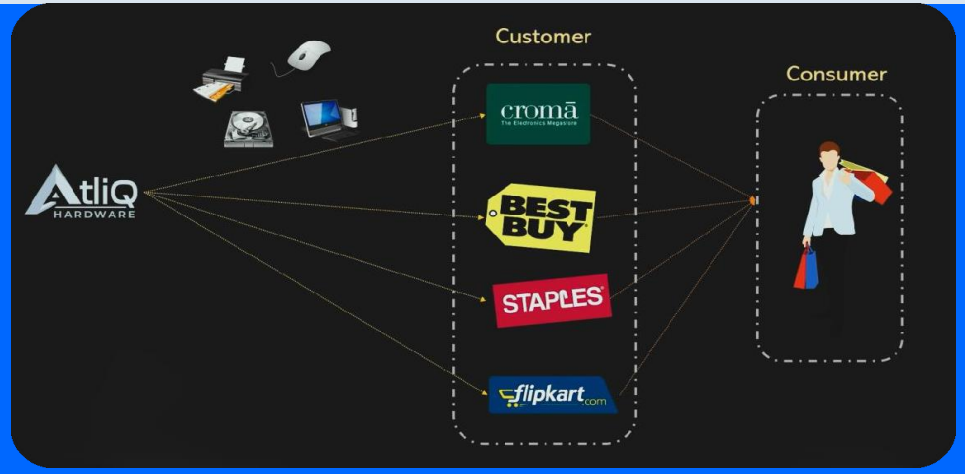
AtliQ Hardware, a rapidly growing consumer electronics company with operations in multiple countries, is facing significant challenges due to outdated data analytics practices. Despite their growth, they continue to rely on Excel files for data management, leading to inefficiencies and difficulty in generating actionable insights. This limitation recently contributed to a substantial loss in our Latin American market. It's crucial for AtliQ Hardware to transition to more advanced and integrated data analytics solutions to harness our full potential, optimize decision- making, and prevent future setbacks.

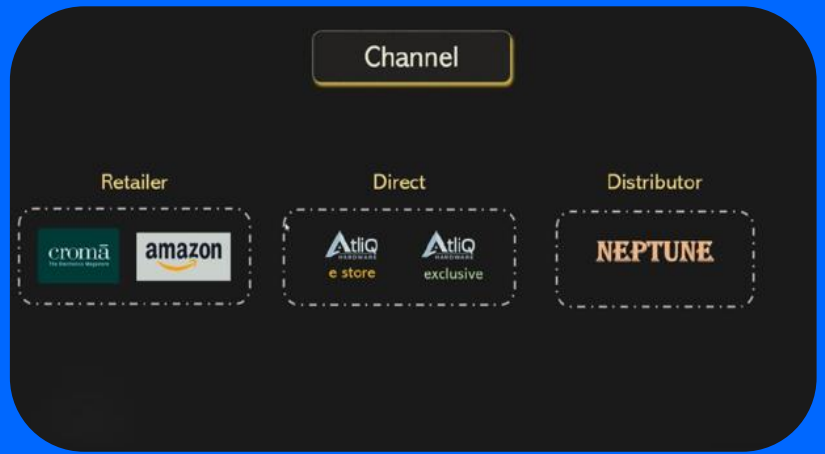
Objective

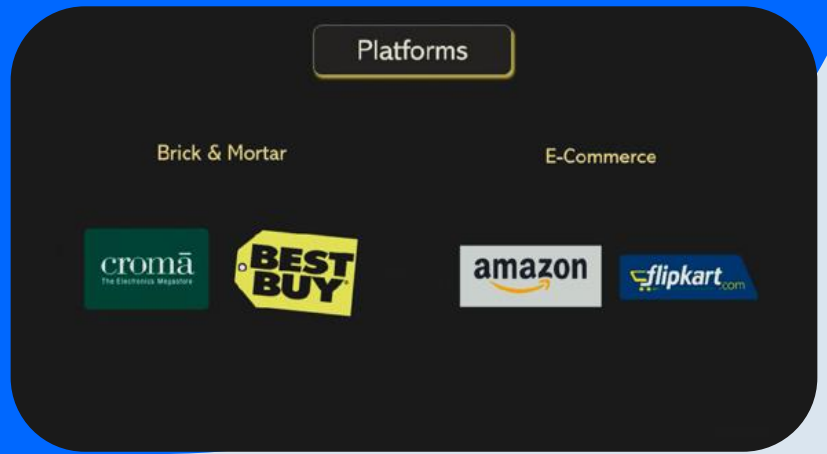
To transition AtliQ Hardware from relying on Excel files to an advanced, integrated data analytics solution. This will enable the company to effectively generate actionable insights, optimize decision-making processes, and prevent future losses, particularly in key markets such as Latin America. The ultimate goal is to enhance operational efficiency, support sustained business growth, and maintain a competitive edge in the consumer electronics industry.

Company Model

Company Platform and Structure

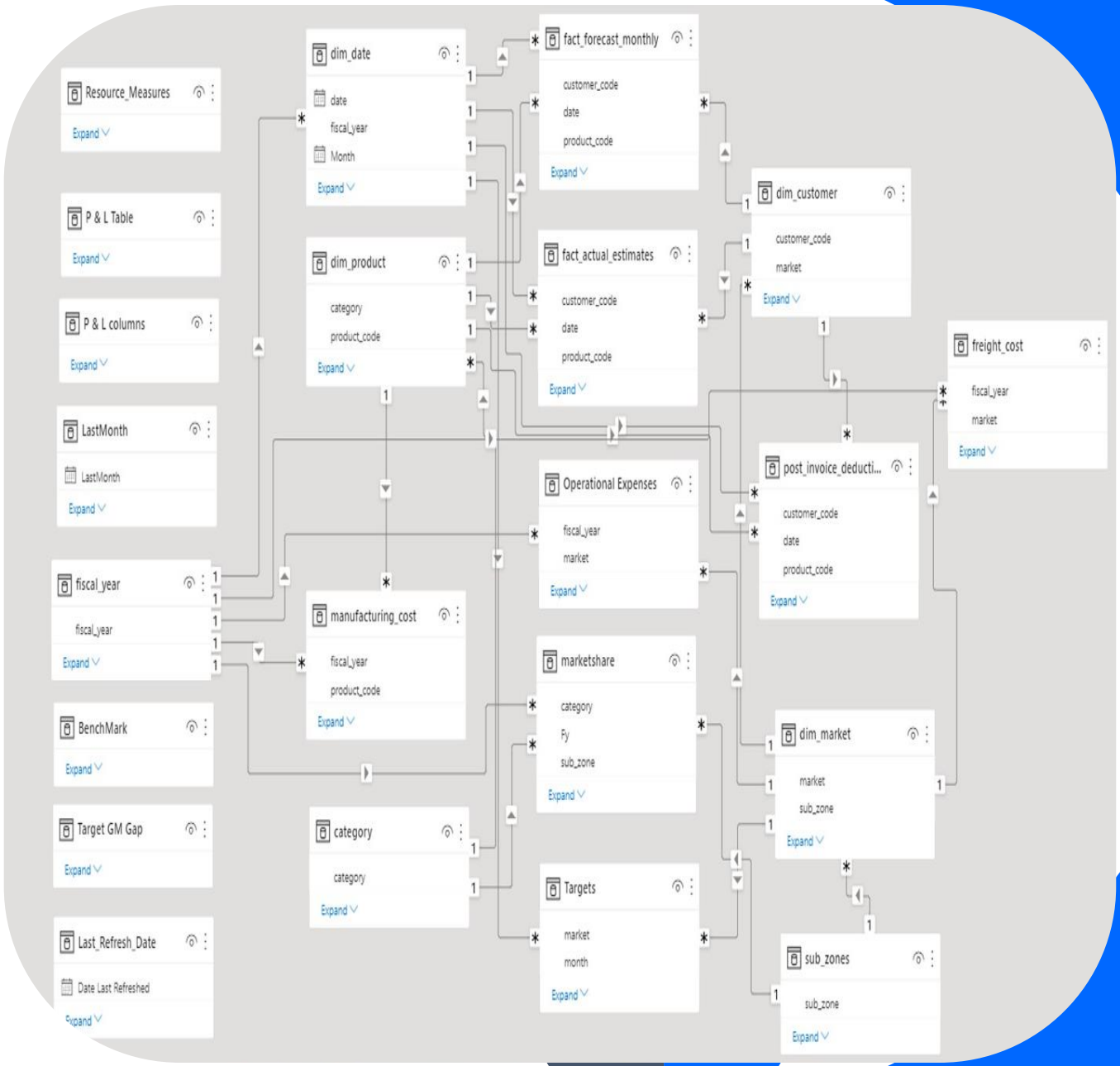






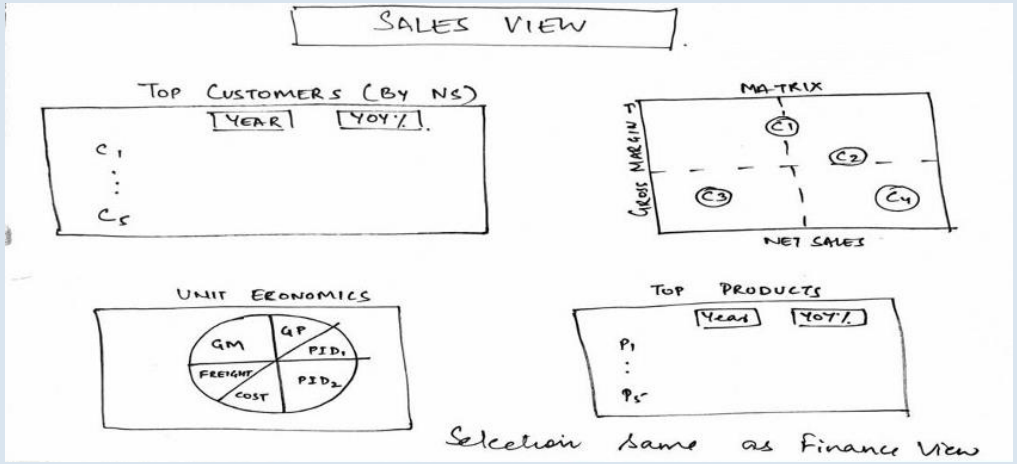
Data Model

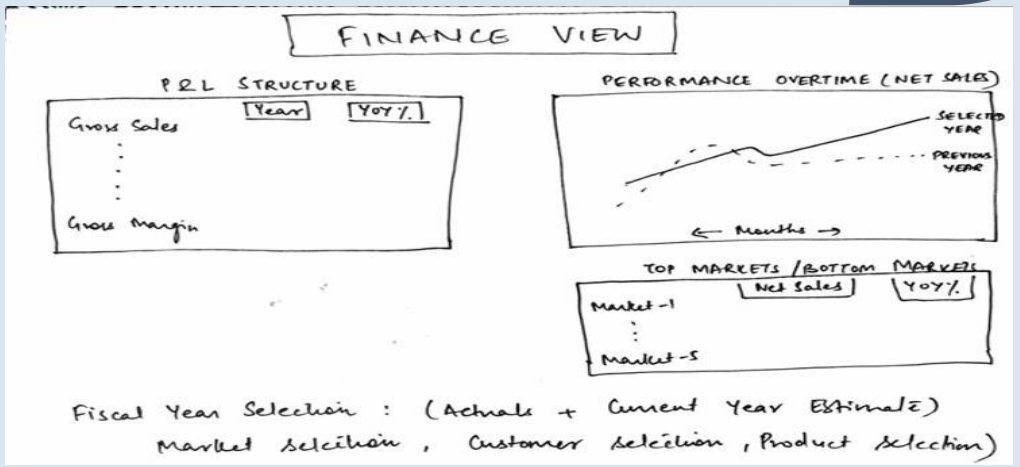
- DAX - Explicit Measures
- Star Schema - with fact tables in the centre.
- Snowflake Schema – Normalizes dimension tables.

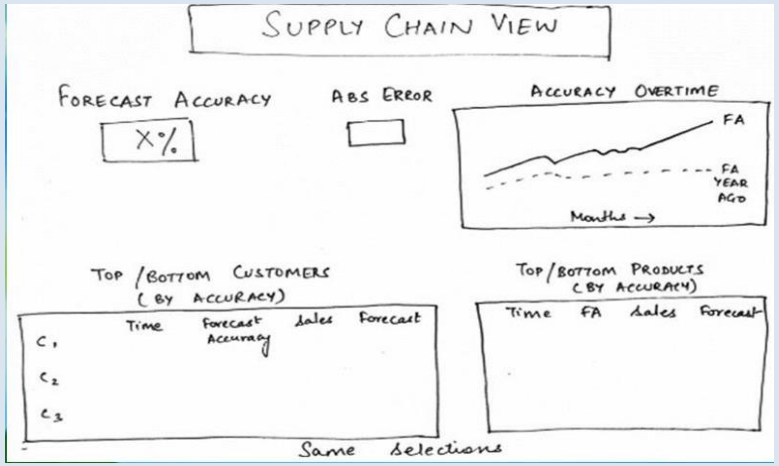


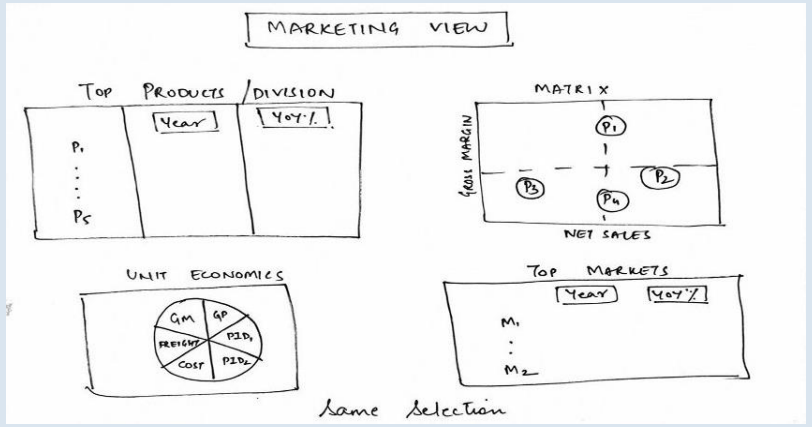
Dashboard

Dashboard Mockup









Home

Business Insights 360

Info

Download **user manual** and get to know the key information of this tool.

Finance View

Get **P & L statement** for any customer /product / country or aggregation of the above over any time period and More..

Sales View

Analyze the performance of your customer(s) over key metrics like Net Sales, Gross Margin and view the same in **profitability / Growth matrix.**

Marketing View

Analyze the performance of your product(s) over key metrics like Net Sales, Gross Margin and view the same in **profitability / Growth matrix.**

Supply Chain View

Get **Forecast Accuracy**, Net Error and risk profile for product, segment, category, customer etc.

Executive View

A **top level dashboard** for executives consolidating top insights from all dimensions of business.

Support

Get your **issues resolved** by connecting to our support specialist.

Report Refresh Date Sunday, June 30, 2024

Values are in Dollars & Millions

Sales data loaded until : Dec 21

Financial View

region, market: All | customer: All | segment, category, pr...: All

2018 | 2019 | 2020 | 2021 | 2022 Est

Q1 | Q2 | Q3 | Q4

YTD | YTG

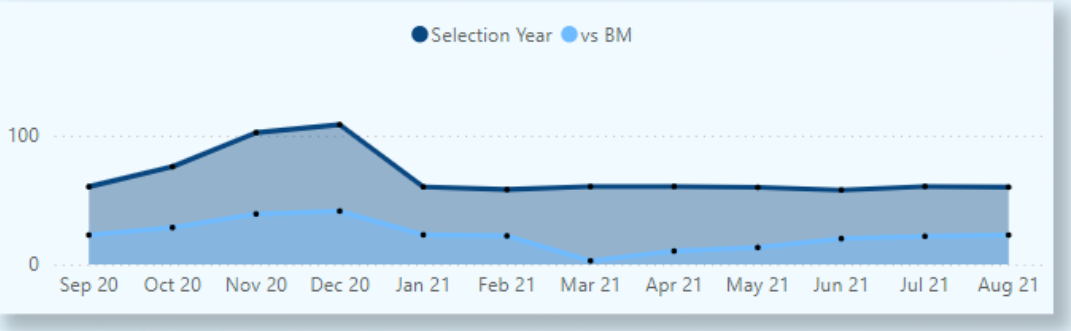
vs LY | vs Target

$823.85M ✓
BM: 267.98M (+207.43%)
Net Sales

36.49% !
BM: 37.10% (-1.65%)
GM%

-6.63% !
BM: -0.85% (-676.38%)
Net Profit %

Net Sales Performance Over Time



Profit / Loss Statement

Line Item	2021	BM	Chg	Chg %
Gross Sales	1,664.64	535.95	1,128.69	210.60
Pre Invoice Deduction	392.50	124.69	267.81	214.77
Net Invoice Sales	1,272.13	411.25	860.88	209.33
- Post Discounts	281.64	95.85	185.79	193.84
- Post Deductions	166.65	47.43	119.22	251.38
Total Post Invoice Deduction	448.29	143.27	305.01	212.89
Net Sales	823.85	267.98	555.87	207.43
- Manufacturing Cost	497.78	160.30	337.48	210.53
- Freight Cost	22.05	7.16	14.89	207.98
- Other Cost	3.39	1.10	2.29	209.52
Total COGS	523.22	168.56	354.66	210.41
Gross Margin	300.63	99.42	201.21	202.37
Gross Margin %	36.49	37.10	-0.61	-1.65
Operational Expense	-355.28	-101.71	-253.57	249.30
Net Profit	-54.65	-2.29	-52.36	2,286.82
Net Profit %	-6.63	-0.85	-5.78	676.38

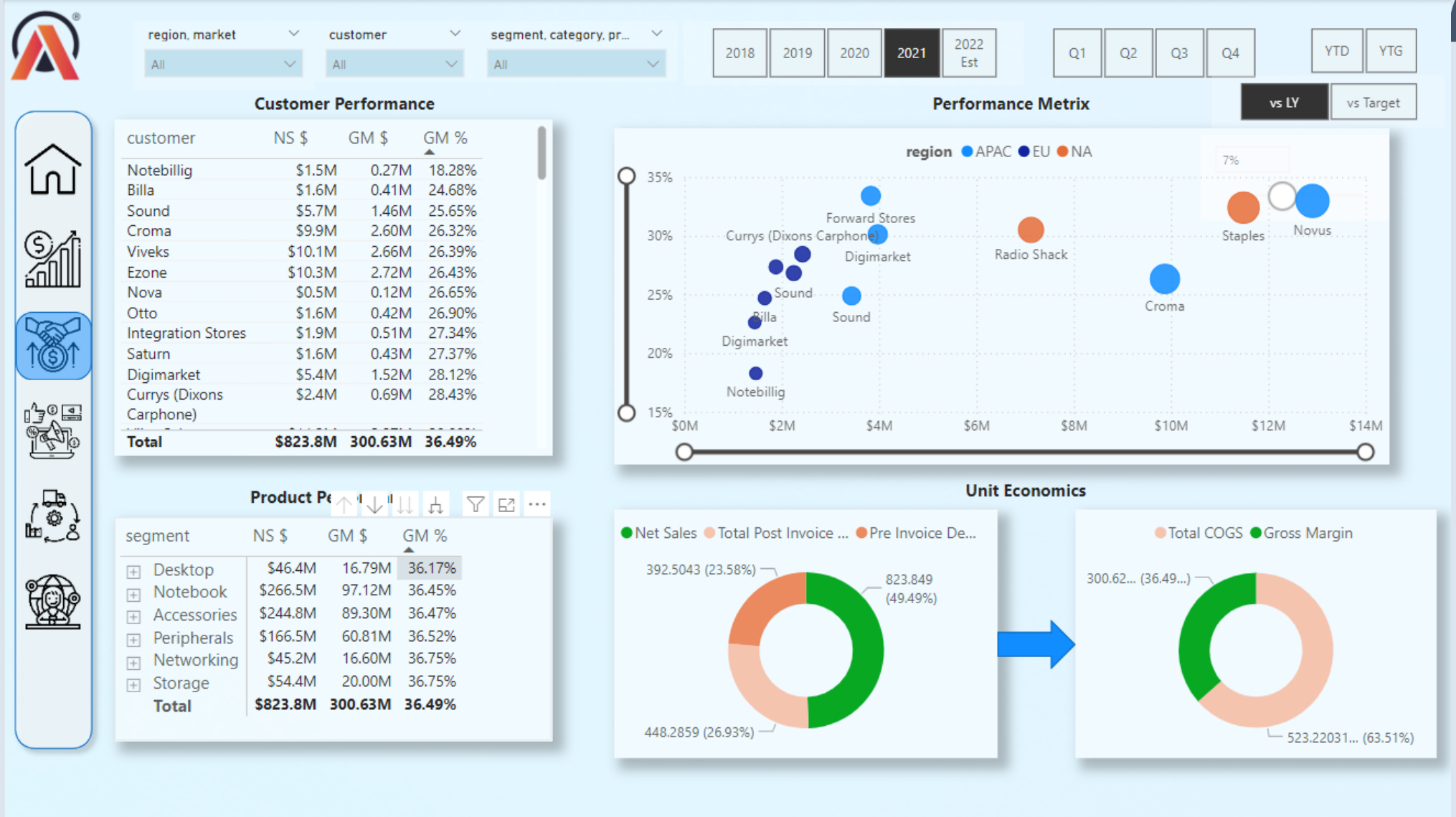
Top / Bottom Products & Customers byNet Sales

region	P & L Values	P & L Chg %
APAC	441.98	198.67
EU	200.77	259.88
LATAM	3.16	58.40
NA	177.94	186.03
Total	**823.85**	**207.43**

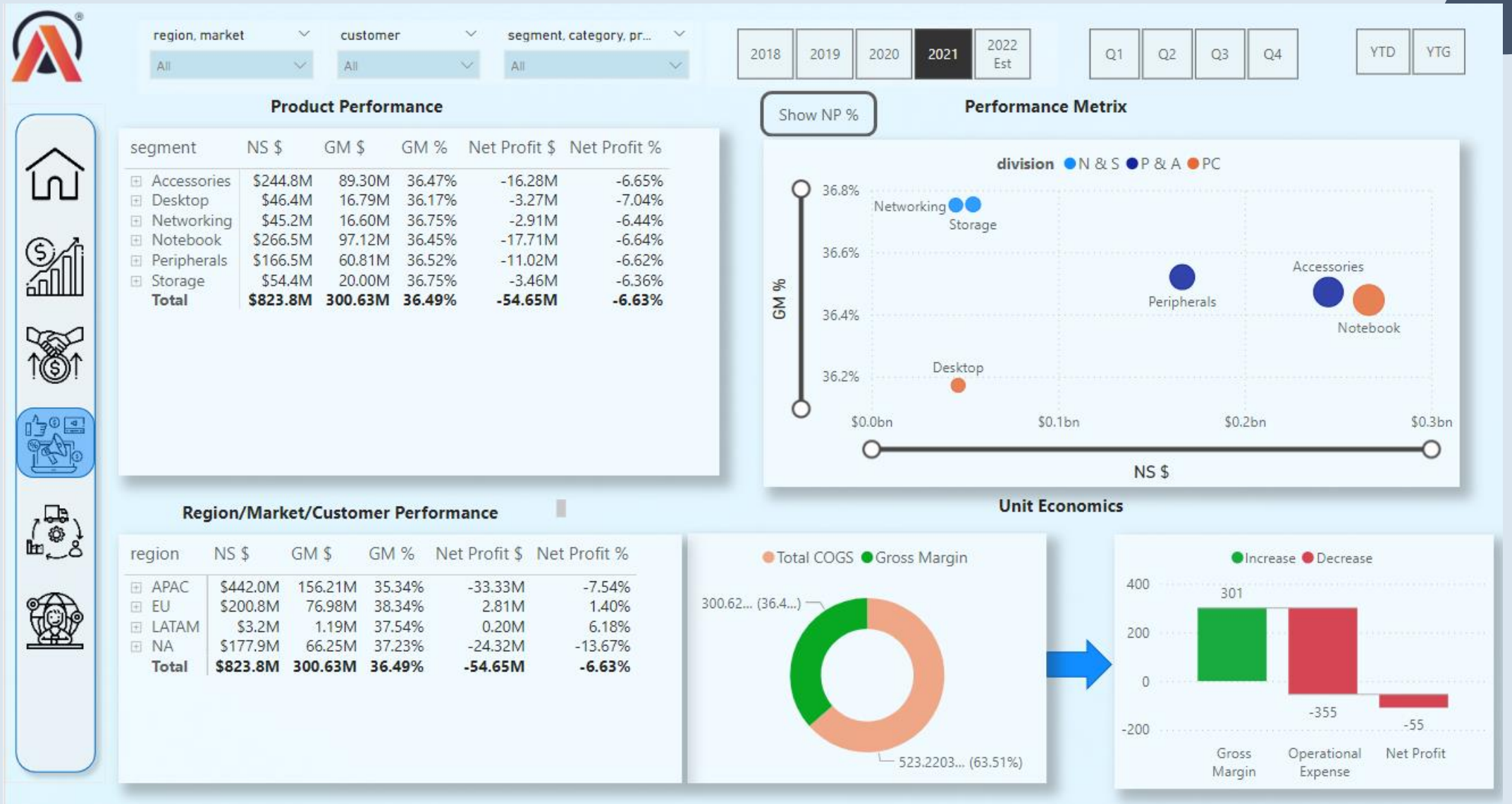
segment	P & L Values	P & L Chg %
Accessories	244.85	269.67
Desktop	46.43	4,791.34
Networking	45.16	72.26
Notebook	266.49	208.45
Peripherals	166.51	174.64
Storage	54.42	97.48
Total	**823.85**	**207.43**

BM = Benchmark, LY=Last Year

Sales View


region, market
All
customer
All
segment, category, pr...
All
2018
2019
2020
2021
2022 Est
Q1
Q2
Q3
Q4
YTD
YTG
vs LY
vs Target
Customer Performance
customer NS $ GM $ GM %
Notebillig $1.5M 0.27M 18.28%
Billa $1.6M 0.41M 24.68%
Sound $5.7M 1.46M 25.65%
Croma $9.9M 2.60M 26.32%
Viveks $10.1M 2.66M 26.39%
Ezone $10.3M 2.72M 26.43%
Nova $0.5M 0.12M 26.65%
Otto $1.6M 0.42M 26.90%
Integration Stores $1.9M 0.51M 27.34%
Saturn $1.6M 0.43M 27.37%
Digimarket $5.4M 1.52M 28.12%
Currys (Dixons Carphone) $2.4M 0.69M 28.43%
Total $823.8M 300.63M 36.49%
Performance Metrix
region APAC EU NA
35%
30%
25%
20%
15%
$0M
$2M
$4M
$6M
$8M
$10M
$12M
$14M
Forward Stores
Currys (Dixons Carphone)
Digimarket
Radio Shack
Sound
Billa
Sound
Digimarket
Notebillig
Croma
7%
Staples
Novus
Product Pe
segment NS $ GM $ GM %
Desktop $46.4M 16.79M 36.17%
Notebook $266.5M 97.12M 36.45%
Accessories $244.8M 89.30M 36.47%
Peripherals $166.5M 60.81M 36.52%
Networking $45.2M 16.60M 36.75%
Storage $54.4M 20.00M 36.75%
Total $823.8M 300.63M 36.49%
Unit Economics
Net Sales
Total Post Invoice ...
Pre Invoice De...
392.5043 (23.58%)
823.849 (49.49%)
448.2859 (26.93%)
Total COGS
Gross Margin
300.62... (36.49...)
523.22031... (63.51%)

Marketing View



Supply Chain View

region, market: All | customer: All | segment, category, pr...: All

2018 | 2019 | 2020 | 2021 | 2022 Est

Q1 | Q2 | Q3 | Q4

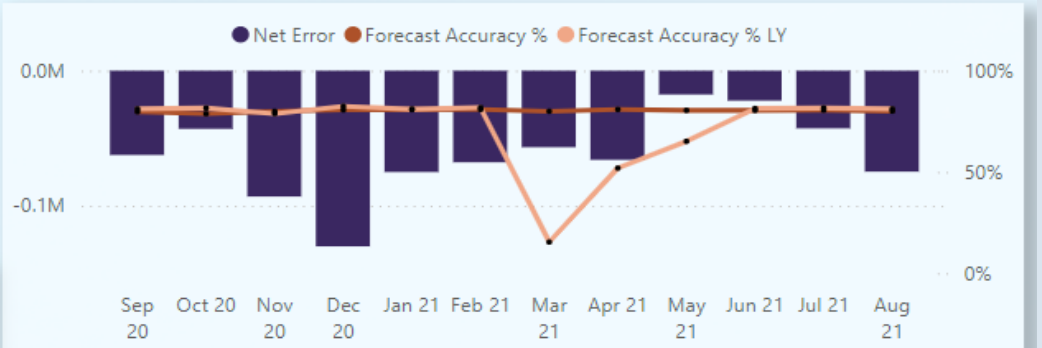
YTD | YTG

80.21% ✓
LY : 72.99% (+9.88%)
Forecast Accuracy

-751.71K ✓
LY : 491.6K (+252.91%)
Net Error

9780.74K !
LY : 5743.2K (-70.3%)
ABS Error

Accuracy / Net Error Trend



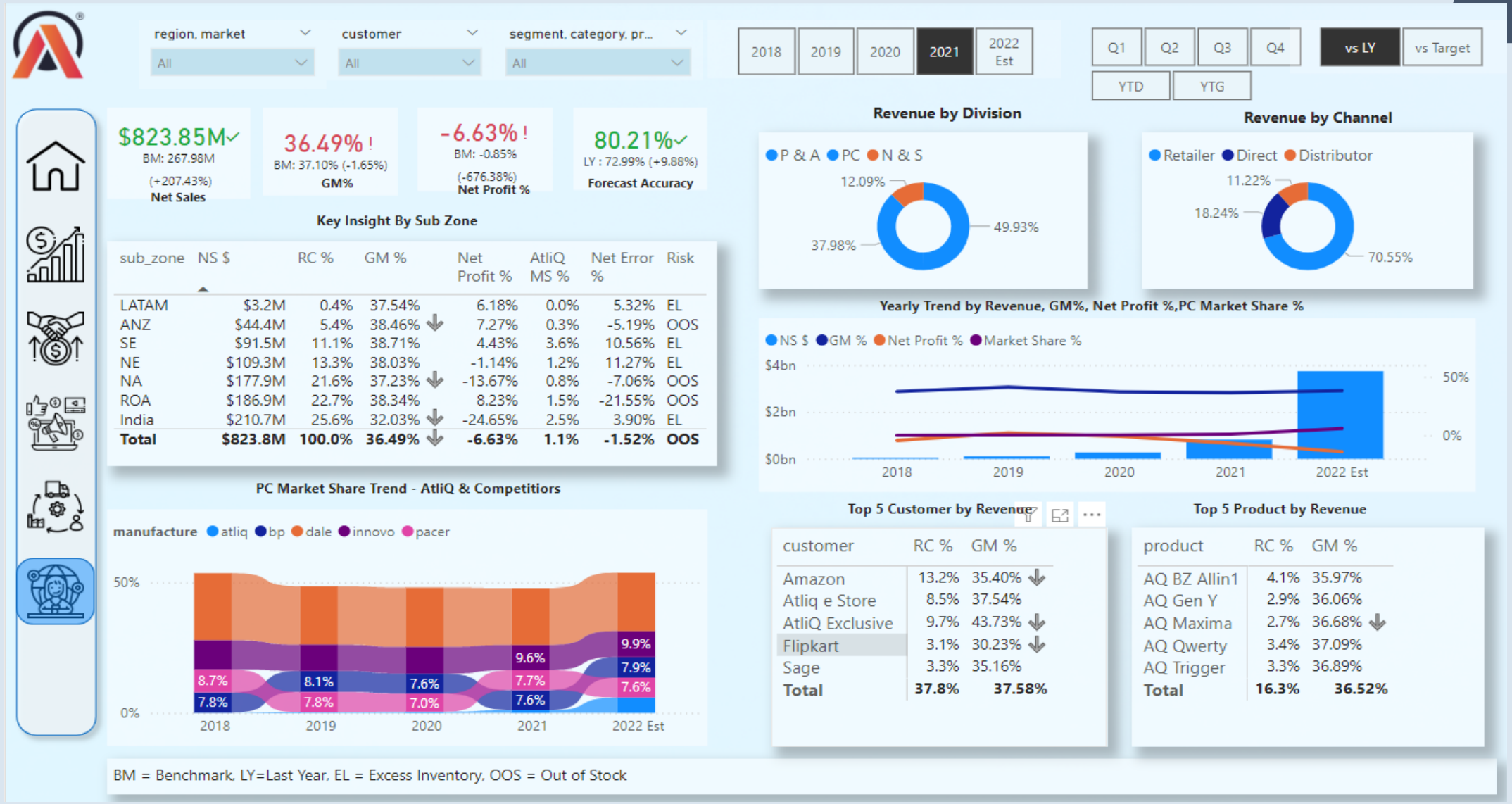
Key Metrics By Customer

customer	Forecast Accuracy %	Forecast Accuracy % LY	Net Error	Net Error %	Risk
Acclaimed Stores	50.69%	8.69%	-122,555	-16.23%	OOS
All-Out	29.09%	35.18%	-12,425	-30.67%	OOS
Amazon	74.54%	48.43%	-155,116	-2.35%	OOS
Argos (Sainsbury's)	56.08%	43.27%	8,033	4.14%	EL
Atlas Stores	48.16%	39.19%	99,521	29.63%	EL
Atliq e Store	74.59%	55.24%	-94,643	-2.30%	OOS
AtliQ Exclusive	71.69%	56.65%	-189,086	-4.59%	OOS
BestBuy	35.31%	7.31%	-73,279	-16.97%	OOS
Billa	18.29%	26.05%	-37,856	-47.09%	OOS
Boulanger	58.77%	38.12%	81,786	18.34%	EL
Chip 7	53.44%	41.32%	95,124	18.82%	EL
Chiptec	52.54%	27.04%	72,175	22.07%	EL
Circuit City	35.02%	9.90%	-84,752	-19.00%	OOS
Control	47.42%	30.41%	-64,707	-11.99%	OOS
Coolblue	52.95%	43.16%	116,840	26.87%	EL
Costco	49.42%	33.18%	24,581	3.50%	OOS
Total	**80.21%**	**72.99%**	**-751,714**	**-1.52%**	**OOS**

Key Metrics by Products

segment	Forecast Accuracy %	Forecast Accuracy % LY	Net Error	Risk
Accessories	77.66%	71.42%	-2,133,183	OOS
Desktop	84.37%	70.07%	16,205	EL
Networking	90.40%	52.50%	227,056	EL
Notebook	79.99%	76.65%	-51,254	OOS
Peripherals	83.23%	75.18%	-318,194	OOS
Storage	83.54%	81.01%	1,507,656	EL
Total	**80.21%**	**72.99%**	**-751,714**	**OOS**

Executive View



Support View

Info View

Business Insights 360

1. All the system data in tool is refreshed every month on 5th working day.

2. System data such as Forecast, Actuals and Historical forecast are received from Global database.

3. Non system data such as Target, Operational Expense and Market Share are refreshed on request.

4. For FAQs click here.

5. Download live excel version here.

Key Measures and Formula

Key Measures and Formula

- Performance Visual title = [Selected P & L Row] & " Performance Over Time“
- Post Invoice Deducation $ = SUM(fact_actual_estimates[post_invoice_deducations_amt])
- Post Invoice Other Deducation $ = SUM(fact_actual_estimates[post_invoice_other_deducations_amt])
- Pre Invoice Deducation $ = [GS $]-[NIS $]
- Quantity = SUM(fact_actual_estimates[Qty])
- RC % = DIVIDE([NS $],CALCULATE([NS $],ALL(dim_market),ALL(dim_customer),ALL(dim_product)))
- Risk = IF([Net Error]>0,"EL",IF([Net Error]<0,"OOS",BLANK()))
- Sales Qty = CALCULATE([Quantity],fact_actual_estimates[date]<=MAX(LastSalesMonth[LastSalesMonth]))
- Sales Trend Title = "NS & GM % For "& SELECTEDVALUE(dim_customer[customer])
- Selected P & L Row = IF(HASONEVALUE('P & L Rows'[Description]),SELECTEDVALUE('P & L Rows'[Description]),"Net Sales")
- Top / Bottom N title = "Top / Bottom Products & Customers by" & [Selected P & L Row]
- Total COGS $ = [Manufacturing Cost $]+[Freight Cost $]+[Other Cost $]
- Total Post Invoice Deducation $ = 'Key Measures'[Post Invoice Deducation $]+'Key Measures'[Post Invoice Other Deducation $]
- NS $ = SUM(fact_actual_estimates[net_sales_amount])
- NS $ LY = CALCULATE([NS $],SAMEPERIODLASTYEAR(dim_date[date]))
- NS BM $ = SWITCH(TRUE(), SELECTEDVALUE('set BM'[ID])=1,[NS $ LY], SELECTEDVALUE('set BM'[ID])=2,[NS Target $])
- NS Target $ = var rs = SUM(NsGmTarget[ns_target]) RETURN IF([Customer / Product Filter Check],BLANK(),rs)
- Operational Expense $ = ([Ads & Promotions $]+[Other Operational Expense $])*-1
- Other Cost $ = SUM(fact_actual_estimates[other_cost])
- Other Operational Expense $ = SUM(fact_actual_estimates[other_operational_expense])
- GM_Percentage = [GM %]
- GMComparison = IF([GM %] < [GM Target %], "1", "0")
- GS $ = SUM(fact_actual_estimates[gross_sales_amount])

Last Sales Month Footer =

"Sales data loaded until : "& FORMAT(MAX(LastSalesMonth[LastSalesMonth]),"MMM YY")

- Manufacturing Cost $ = SUM(fact_actual_estimates[manufacturing_cost])
- Market Share % = DIVIDE(SUM(marketshare[sales_$]),SUM(marketshare[total_market_sales_$]),0)
- Net Error = [Forecast Qty]-[Sales Qty]
- Net Error % = DIVIDE([Net Error],[Forecast Qty],0)
- Net Error LY = CALCULATE([Net Error],SAMEPERIODLASTYEAR(dim_date[date]))
- Net Profit % = DIVIDE([Net Profit $],[NS $],0)
- Net Profit % LY = CALCULATE([Net Profit %],SAMEPERIODLASTYEAR(dim_date[date]))
- Net Profit $ = [GM $]+[Operational Expense $]
- Net Profit Target % = DIVIDE([Net Profit Target $],SUM(NsGmTarget[ns_target]),0)
- Net Profit Target $ = SUM(NsGmTarget[np_target])
- NIS $ = SUM(fact_actual_estimates[net_invoice_sales_amount])
- NP % BM = SWITCH(TRUE(), SELECTEDVALUE('set BM'[ID])=1,[Net Profit % LY], SELECTEDVALUE('set BM'[ID])=2,[Net Profit Target %])

Key Measures and Formula

- ABS Error = SUMX(DISTINCT(dim_date[date]),SUMX(DISTINCT(dim_product[product_code]),ABS([Net Error])))
- ABS Error % = DIVIDE([ABS Error],[Forecast Qty],0)
- ABS Error LY = CALCULATE([ABS Error],SAMEPERIODLASTYEAR(dim_date[date]))
- Ads & Promotions $ = SUM(fact_actual_estimates[ads_promotations])
- AtliQ MS % = CALCULATE([Market Share %],marketshare[manufacture]="atliq")
- BM Message = IF([NS BM $]=BLANK()||[GM % BM]=BLANK()||[NP % BM]=BLANK(),"BM Target (s) is not available for selected year","")
- Custome_heilght = IF([GM %] < [GM Target %], "Red", "No color")
- Customer / Product Filter Check = ISCROSSFILTERED(dim_product[product]) || ISFILTERED(dim_customer[customer])
- Forecast Accuracy % = IF([ABS Error %]<> BLANK(),1- [ABS Error %],BLANK())
- Forecast Accuracy % LY = CALCULATE([Forecast Accuracy %],SAMEPERIODLASTYEAR(dim_date[date]))

Forecast Qty = var lslastdate = MAX(LastSalesMonth[LastSalesMonth]) RETURN

CALCULATE(SUM(fact_forecast_monthly[forecast_quantity]),fact_forecast_monthly[date]<=lslastdate)

- Freight Cost $ = SUM(fact_actual_estimates[freight_cost])
- **GM**
- GM / Unit = DIVIDE([GM $],[Quantity],0)
- GM % = DIVIDE([GM $],[NS $],0)
- GM % BM = SWITCH(TRUE(), SELECTEDVALUE('set BM'[ID])=1,[GM % LY], SELECTEDVALUE('set BM'[ID])=2, [GM Target %])
- GM % Filter = IF([GM % Variance]>=SELECTEDVALUE('Target Gap Tolerances'[Target Gap Tolerances]),1,0)
- GM % LY = CALCULATE([GM %],SAMEPERIODLASTYEAR(dim_date[date]))
- GM % Variance = [GM % BM]-[GM %]
- GM $ = [NS $]-[Total COGS $]
- GM Target % = DIVIDE([GM Target $],SUM(NsGmTarget[ns_target]),0)
- GM Target $ = SUM(NsGmTarget[gm_target])
- **P & L**
- P & L BM = SWITCH(TRUE(), SELECTEDVALUE('set BM'[ID])=1,[P & L LY],

SELECTEDVALUE('set BM'[ID])=2,[P & L Target])

- P & L Chg = var res = [P & L Values]-[P & L BM] RETURN IF(ISBLANK([P & L BM])|| ISBLANK([P & L Values]),BLANK(),res)
- P & L Chg % = var res = DIVIDE([P & L Chg],[P & L BM],0)*100 RETURN IF(ISBLANK([P & L BM])|| ISBLANK([P & L Values]),BLANK(),res)
- P & L Final Value = SWITCH(TRUE(),SELECTEDVALUE(fiscal_year[fy_desc])=MAX('P & L Column'[Col Header]),[P & L Values],MAX('P & L Column'[Col Header])="BM",[P & L BM],MAX('P & L Column'[Col Header])="Chg",[P & L Chg],MAX('P & L Column'[Col Header])="Chg %",[P & L Chg %])
- P & L LY = CALCULATE([P & L Values],SAMEPERIODLASTYEAR(dim_date[date]))
- P & L Target = VAR res =SWITCH(TRUE(),MAX('P & L Rows'[Order]) =7, [NS Target $]/1000000,MAX('P & L Rows'[Order]) =12, [GM Target $]/1000000,MAX('P & L Rows'[Order]) =13, [GM Target %]*100,MAX('P & L Rows'[Order]) =16, [Net Profit Target $]/1000000,MAX('P & L Rows'[Order]) =17, [Net Profit Target %]*100) RETURN IF(HASONEVALUE('P & L Rows'[Description]),res,[NS Target $]/1000000)
- P & L Values = VAR res =SWITCH(TRUE(),MAX('P & L Rows'[Order]) =1, [GS $]/1000000,MAX('P & L Rows'[Order]) =2, [Pre Invoice Deducation $]/1000000,MAX('P & L Rows'[Order]) =3, [NIS $]/1000000,MAX('P & L Rows'[Order]) =4, [Post Invoice Deducation $]/1000000,MAX('P & L Rows'[Order]) =5, [Post Invoice Other Deducation $]/1000000,MAX('P & L Rows'[Order])=6,[Post Invoice Deducation $]/1000000+[Post Invoice Other Deducation $]/1000000,MAX('P & L Rows'[Order]) =7, [NS $]/1000000,MAX('P & L Rows'[Order]) =8, [Manufacturing Cost $]/1000000,MAX('P & L Rows'[Order]) =9, [Freight Cost $]/1000000,MAX('P & L Rows'[Order]) =10, [Other Cost $]/1000000,MAX('P & L Rows'[Order]) =11,[Total COGS $]/1000000,MAX('P & L Rows'[Order]) =12, [GM $]/1000000,MAX('P & L Rows'[Order]) =13, [GM %]*100,MAX('P & L Rows'[Order]) =15, [Operational Expense $]/1000000,MAX('P & L Rows'[Order]) =16, [Net Profit $]/1000000,MAX('P & L Rows'[Order]) =17, [Net Profit %]*100) RETURN IF(HASONEVALUE('P & L Rows'[Description]),res,[NS $]/1000000)

Column DAX and Query(M) Formula

- P & L Column = var x=ALLNOBLANKROW(fiscal_year[fy_desc]) RETURN UNION(ROW("Col Header","BM"),   ROW("Col Header","Chg"),ROW("Col Header","Chg %"),x)
- sub_zone = ALLNOBLANKROW(dim_market[sub_zone])
- Target Gap Tolerances = GENERATESERIES(0, 0.2, 0.01)
- fy_desc = var MAXDATE= CALCULATE(MAX(fiscal_year[fiscal_year]),ALL(fiscal_year[fiscal_year]))

  RETURN IF(fiscal_year[fiscal_year]=MAXDATE,MAXDATE & " Est",fiscal_year[fiscal_year])

Power Query Table and Column

- = {Number.From(#date(2017,9,1))..Number.From(#date(2022,12,31))} List to table
- Insert start month: = Table.AddColumn(#"Renamed Columns", "Start of Month", each Date.StartOfMonth([date]), type date)
- Custom column: = Table.AddColumn(#"Renamed Columns1", "fiscal_year", each Date.Year(Date.AddMonths([month],4))) OR =Date.Year(Date.AddMonths([month],4))
- = Table.SelectRows(#"Changed Type1", each ([fiscal_year] <> "2023")) --not <>
- New table sourse: = #table(type table[Report Load Refreshed =datetime],{{DateTime.LocalNow()}})
- Gross_sale_amount: =[Qty]*[gross_price] in custom column
- pre_invoice_discount_amount: =[gross_sales_amount]*[pre_invoice_discount_pct] in custom column
- net_invoice_sales_amount: = [gross_sales_amount]-[pre_invoice_discount_amount] in custom column
- LastSalesmonth: = List.Max(fact_sales_monthly[date])
- Filter; = Table.SelectRows(Source, each ([date] > LastSalesMonth))
- = Table.TransformColumnTypes(Source,{{"Benchmark", type text}, {"ID", Int64.Type}})

	2 distinct, 2 unique	2 distinct, 2 unique
1	vs LY	1
2	vs Target	2

Thank you

Md

Sufiyan