



# **Sri Krishna College of Engineering and Technology**

## **Data Analysis With ML Essentials Using PowerBI Supply Chain & Inventory**

**-BY**

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# Problem Statement

A manufacturing company manages inventory across multiple warehouses.

The company faces two major issues:

- Stock-outs causing delayed customer deliveries
  - Overstocking leading to high holding costs
- Currently, inventory decisions are made manually without analytical support.

As a Supply Chain Analyst, you are asked to:

- Monitor stock levels
- Identify low-stock and overstocked products
- Optimize reorder decisions
- Improve inventory turnover

# Inventory Overview (Core Page)



20.06K

Count of Product\_Id

124

Low Stock Products

1.30K

Inventory Turnover

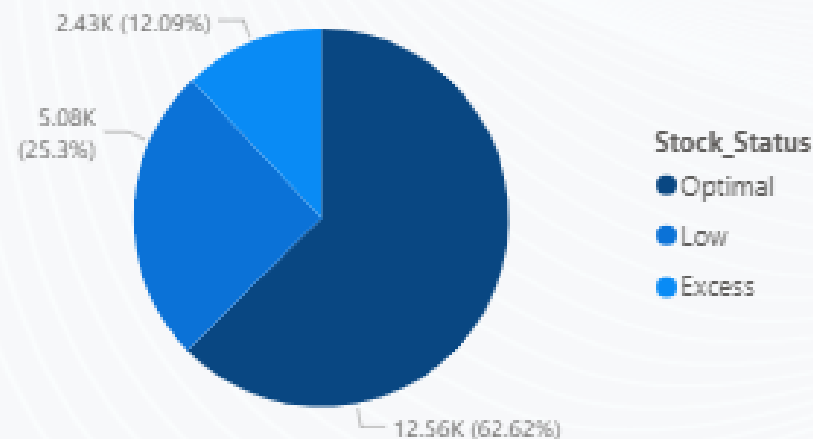
54.00

Average of  
Units\_in\_Stock

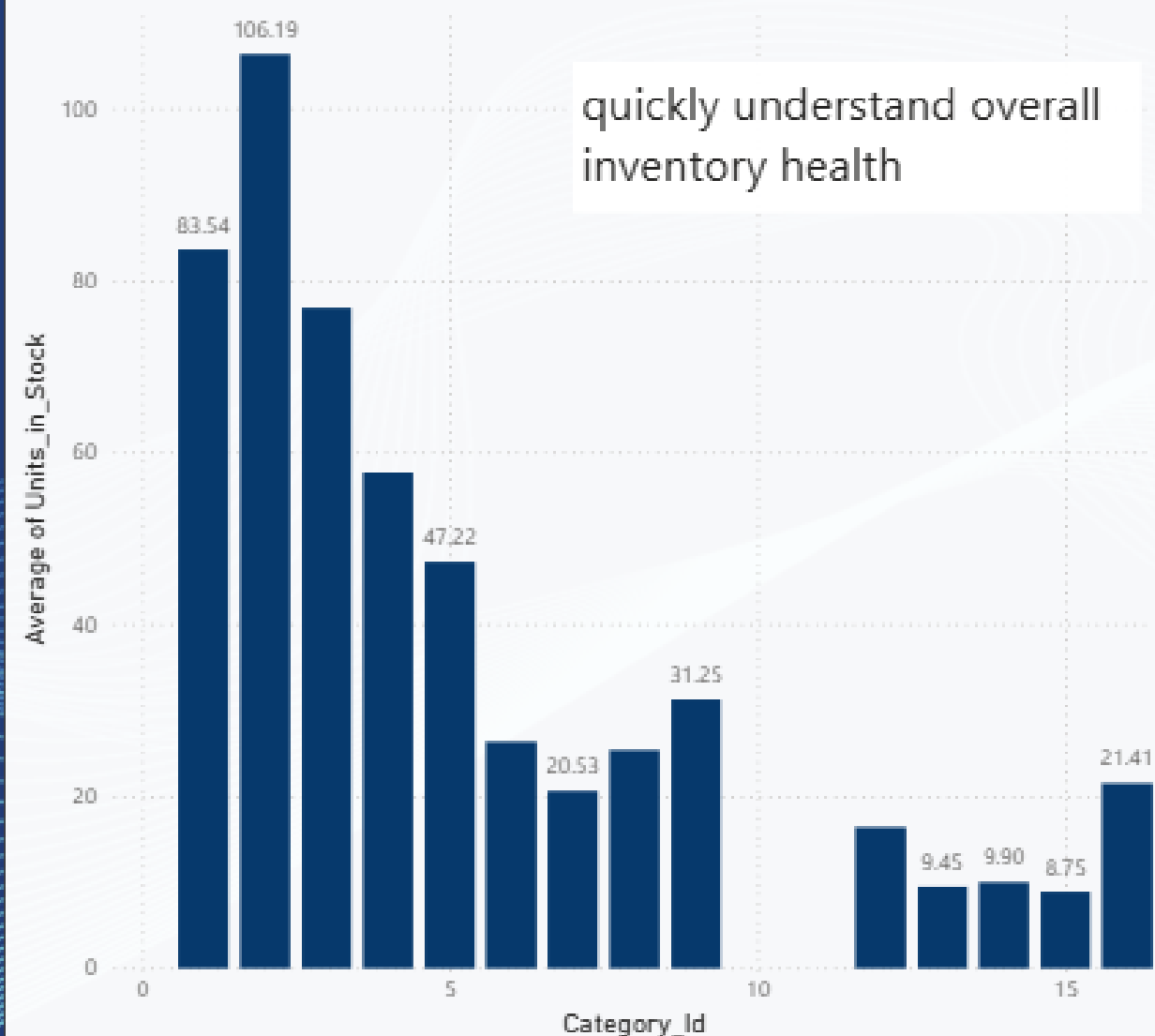
Total Sales Quantity by Store\_Id



Count of Product\_Id by Stock\_Status



Average of Units\_in\_Stock by Category\_Id

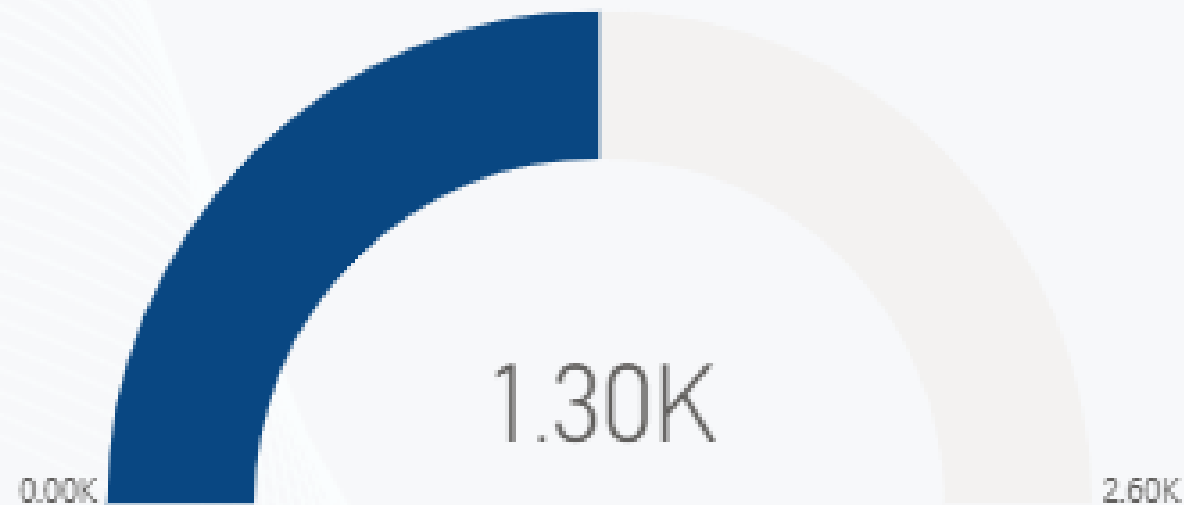




# Product & Stock Analysis



Inventory Turnover

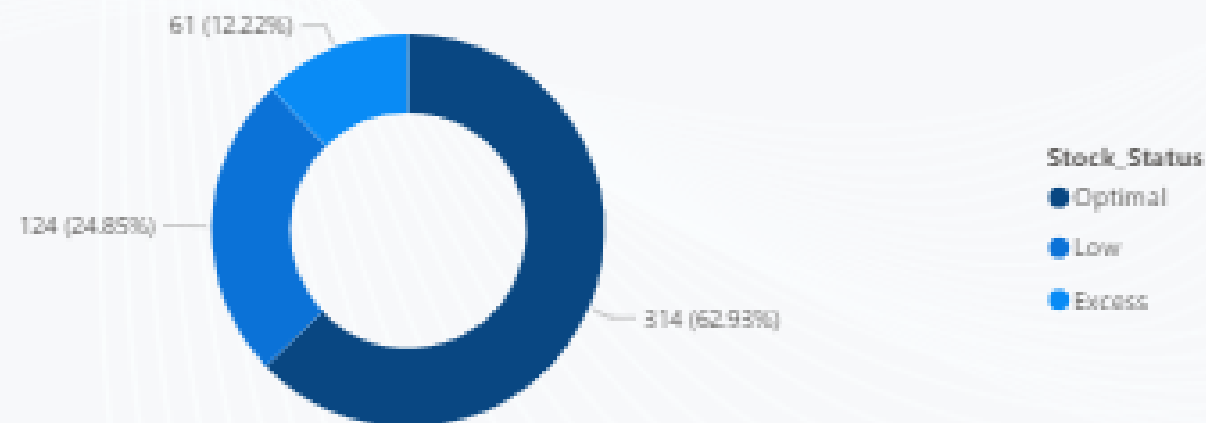


Stock\_Status

☐ Excess

☐ Low

Count of Product\_Id by Stock\_Status



Product Name	Sum of Units_In_Stock	Stock Status
Hygienic toilet	140	Excess
Hygro Cotton	75	Optimal
Ice Cream	100	Optimal
Immersion Rod		Low
Immunity Boosting	120	Excess
Immuniveda Turmeric	70	Optimal
Induction Cooktop	15	Low
Infant Bodysuit	12	Low
Infant Hoodie	12	Low
Instant Hand	140	Excess
Instant Noodles	190	Excess
Intense Repair	120	Excess
Iodized Salt	150	Excess
Jeera Rice	95	Optimal
Joyo Fresherware	30	Optimal
Joyo Kitchen	50	Optimal
Joyo Storage	20	Optimal
Kachi Ghani	90	Optimal
Kesar Pista	40	Optimal
Kids Barbie	140	Excess
Kitchen King	170	Excess
KitKat (37.3g)	75	Optimal
Total	26459	Excess



# Root Cause & Insights



Key influencers Top segments



What influences Stock\_Status to be Low

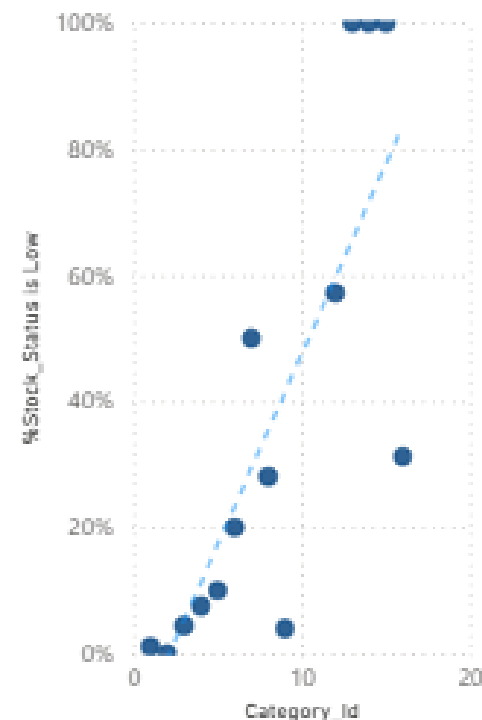
When...

...the likelihood of Stock\_Status being Low increases by

Category\_Id goes up 4.87

5.54x

On average when Category\_Id increases, the likelihood of Stock\_Status being Low increases.



Category\_Id



2

Brand\_name



Vim



P

Sum of Units in Stock  
26459

2  
8495

1  
7435

3  
3300

4  
2245

7  
1211

9  
750

16  
685

Dettol  
1160

Vim  
1140

Lifebuy  
1100

Nivea  
1090

Colgate  
1080

Dove  
1010

Harpic  
1000

1

7

1

4

# Q&A & Geography

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Ask a question about your data

Try one of these to get started

what is the total sales  
value by sub category

what is the total sales  
quantity by sub category

show me total sales  
value for the last year

[Show all suggestions](#)

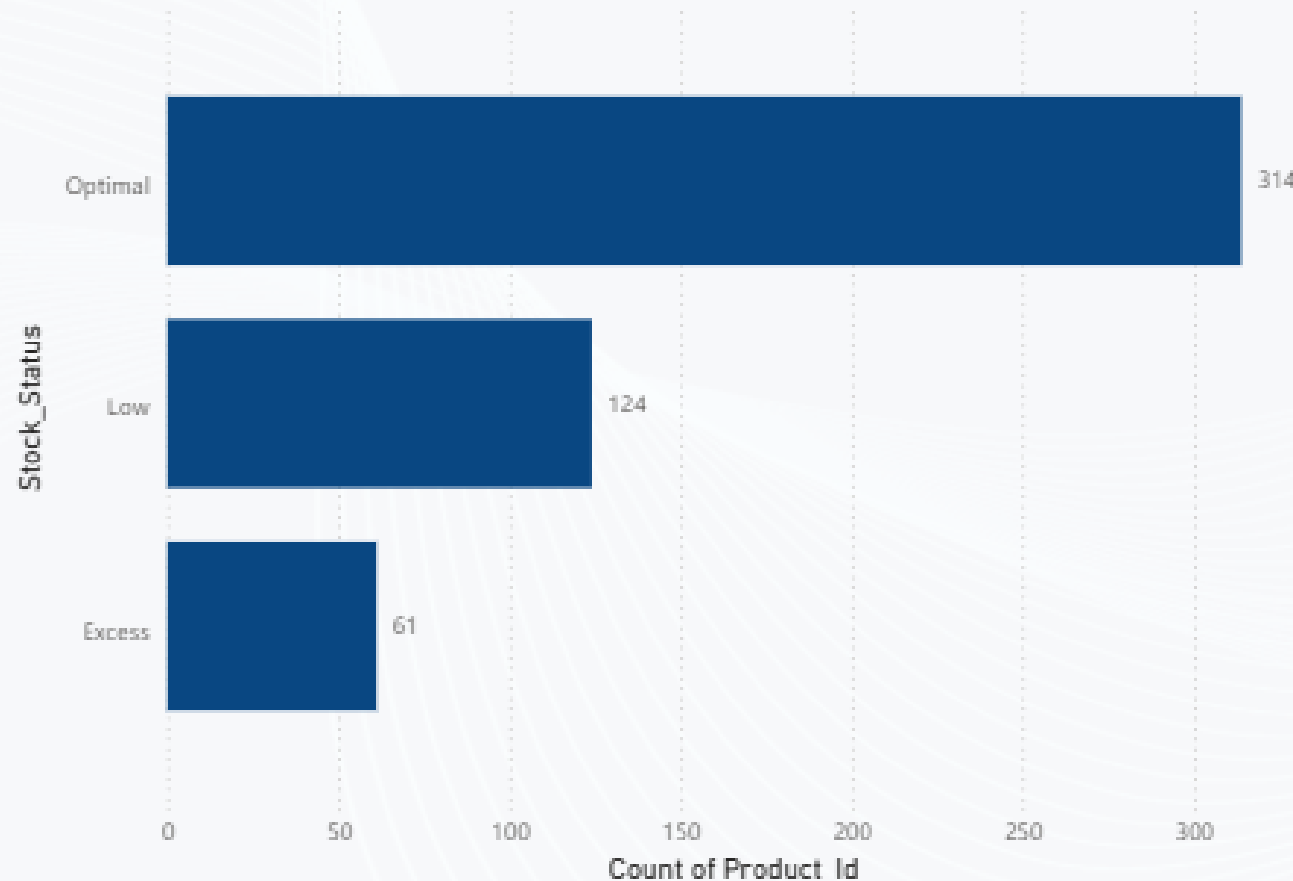
1. Which products have low stock?
2. Inventory turnover by category
3. Top 5 products by unit in stock

## Low Stock Products and Total Sales Quantity by State



# Narrative Summary

Count of Product\_Id by Stock\_Status



At 314, Optimal had the highest Count of Product\_Id and was 414.75% higher than Excess, which had the lowest Count of Product\_Id at 61.

Optimal had the highest Count of Product\_Id at 314, followed by Low at 124 and Excess at 61.

Optimal had 314 Count of Product\_Id, Low had 124, and Excess had 61.



**Thank You**