

Improving Product Sales

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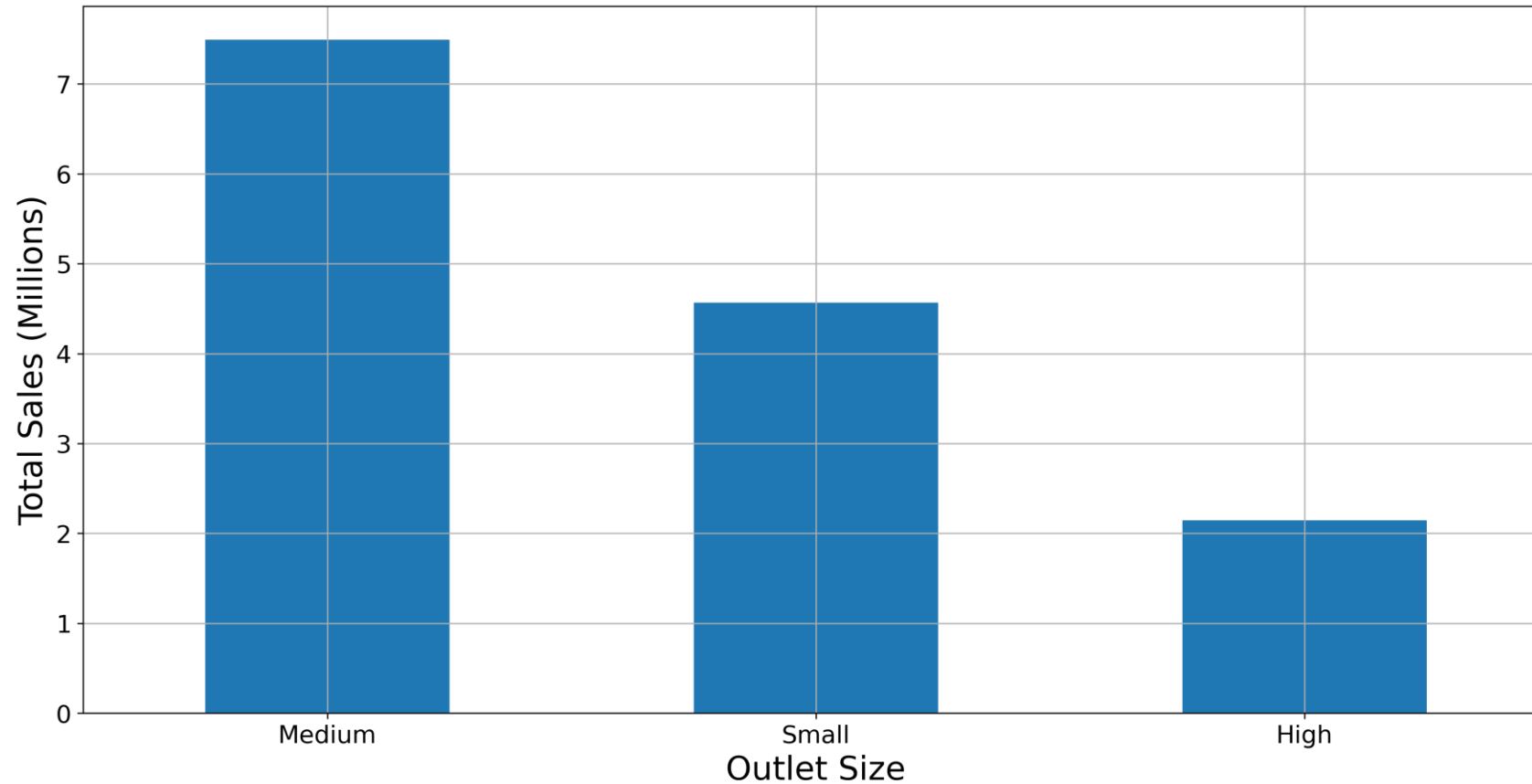
Project Task and Purpose

Task: Analyze dataset provided by the retailer to determine item and/ or outlet characteristics that play crucial roles in predicting sales.

Purpose: Leverage machine learning to help the retailer make predictions about future sales based on the data provided.

What Influences Sales?

Total Sales For Each Outlet Size



Facts

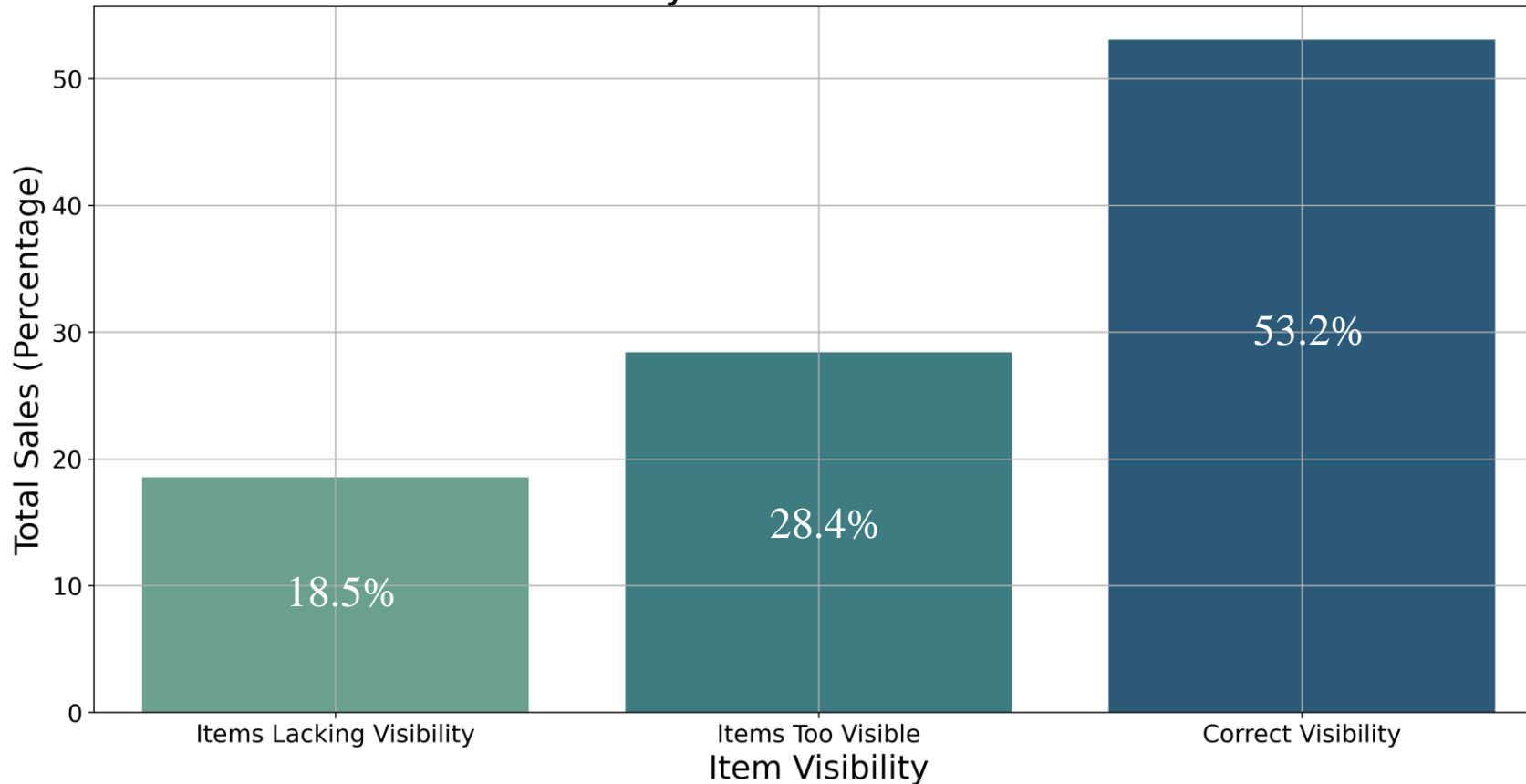
- Factors with impact on sales:
 - Item Visibility
 - Item MRP
 - Outlet Size
 - Outlet Type

Key Take Away

- **Focus on simple but effective changes to improve sales**

What Influences Sales?

Item Visibility and Percent of Total Sales



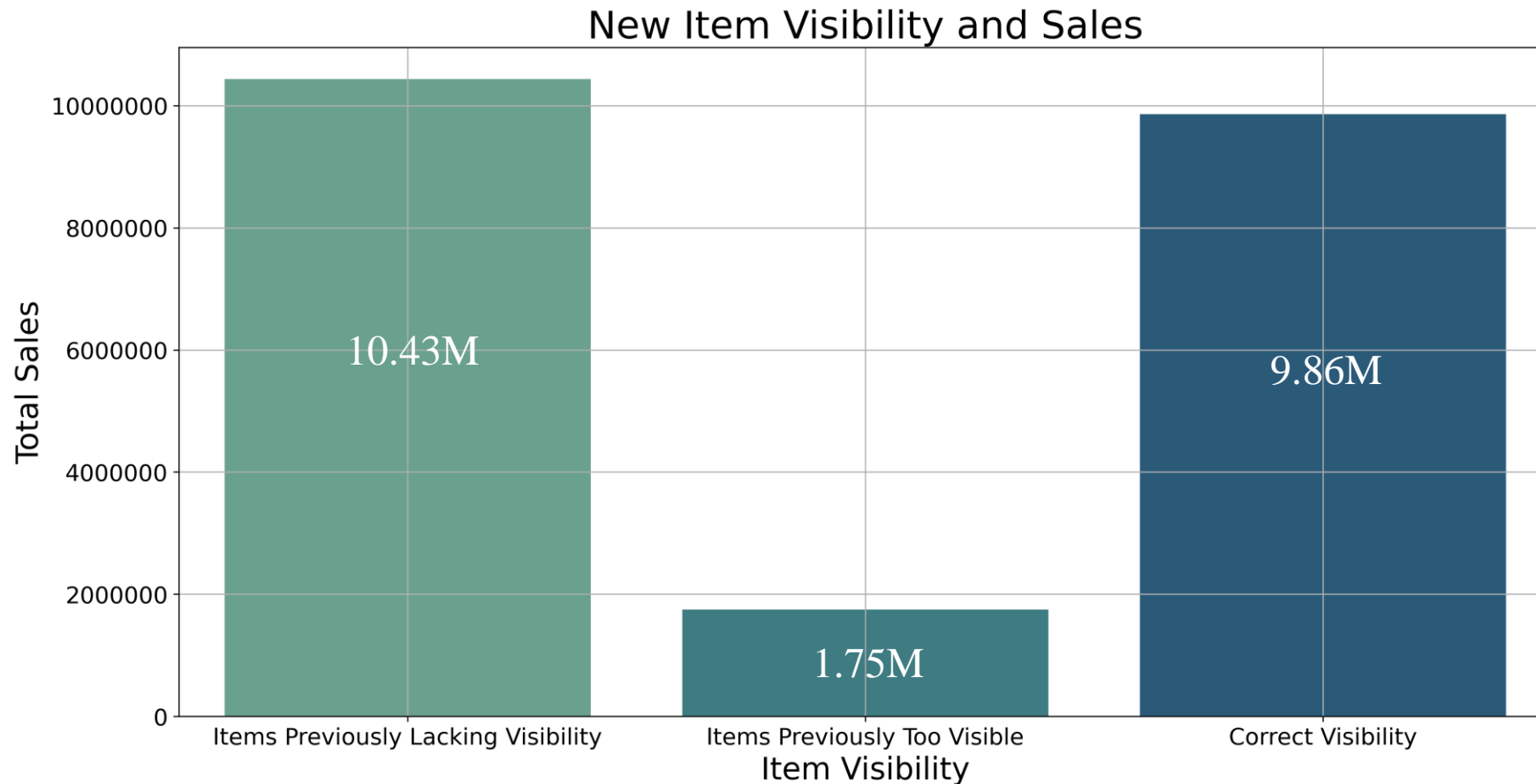
Facts

- Low MRP
 - 3,138 with high visibility
 - Avg Display: 0.0996%
 - 28.4% of total sales
 - ~ 5.28M in sales
- High MRP
 - 955 items with low visibility
 - Avg Display: 0.0241%
 - 18.5% of total sale
 - ~ 3.45M in sales

Key Take Away

- **46.8% of sales are from inefficiently displayed items**
 - Area of significant improvement to increase sales

What can be done?



Facts

- Low MRP
 - 3,138 items converted to low visibility
 - Avg Display: 0.0241%
 - 7.9% of total sales
 - ~ 1.75M in sales
- High MRP
 - 955 items converted to high visibility
 - Avg Display: 0.0996%
 - 47.3% of total sale
 - ~ 10.43M in sales

Key Take Away

- **May be able to increase sales from ~ 18.6M to ~ 22M or an approximate 3.4M (15%) increase in sales**

Conclusions

Summary

- Factors with limited impacts to sales:
 - Item Weight
 - Item Fat Content
 - Item Type
 - Outlet Establishment Year
 - Outlet Location Type
- Factors with real impact on sales
 - Item visibility
 - Item MRP
 - Outlet Size
 - Outlet Type
- Sales prediction tool
 - Machine learning tool optimized to your retail information
 - Allows reasonable predictions of future sales given similar data

Recommendations

- Implement sales predictions tool for all future items and outlets
 - Data scientist currently required
- Strongly consider using the below list to modify in-store display prioritization:

Display Reduction Items:



Display Reduction
Items

Display Increase Items:



Display Increase
Items