MAVEN TOYS INSIGHTS HUB: NAVIGATING SALES, INVENTORY, AND GROWTH STRATEGIES

INTRODUCTION

Maven Toys, a fictitious chain of toy stores in Mexico, has provided datasets containing information about products, stores, daily sales transactions, and inventory levels. The purpose of this data analysis is to derive meaningful insights that can inform decision-making and strategic planning.

Datasets Used:

- Sales Data
- Inventory Data
- Product Data
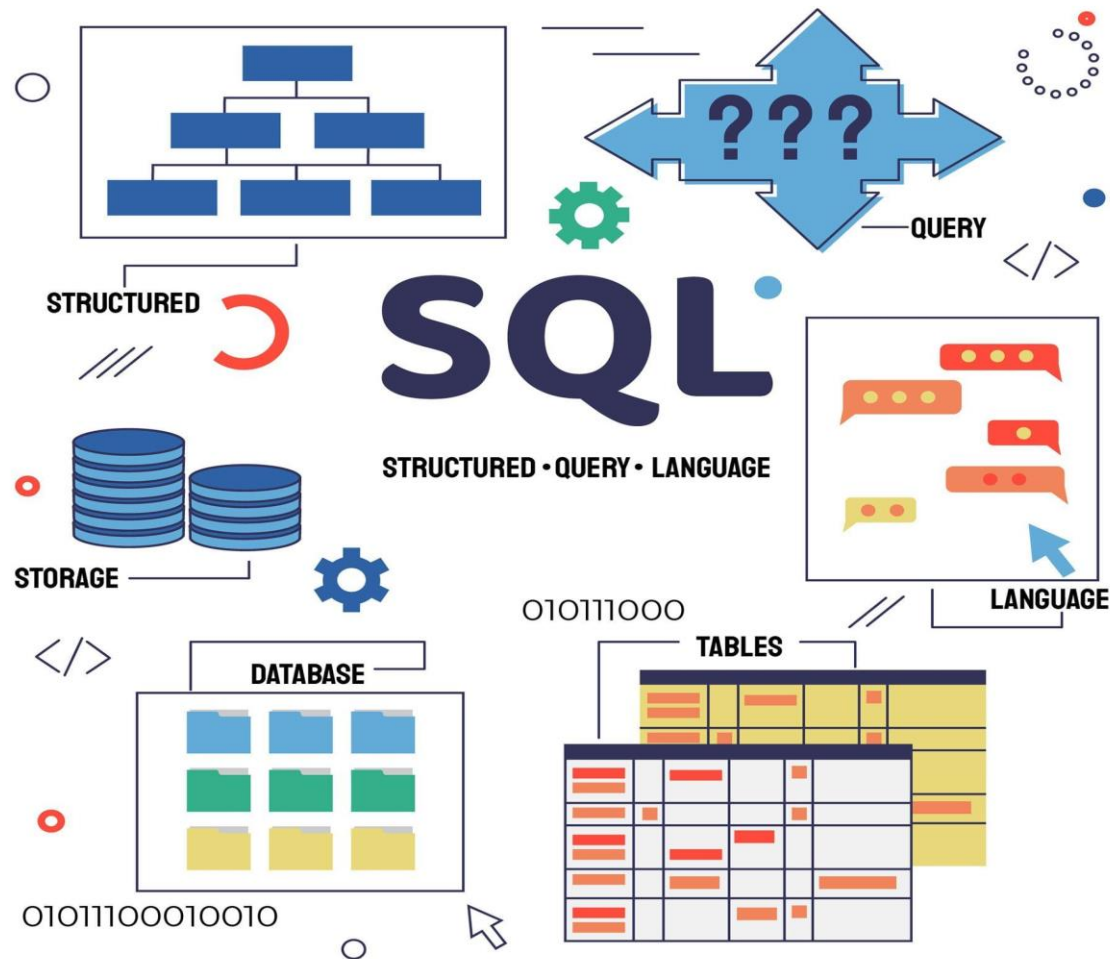- Stores Data

Objectives:

The objectives of this analysis are:

- Understand product performance.
- Evaluate inventory status.
- Explore sales trends.
- Assess store-level insights.

Metrics Explored:

➤ Total Sales Profits

➤ Total Units Sold

➤ Out of Stock Count

➤ Inventory Value

➤ Product Categories
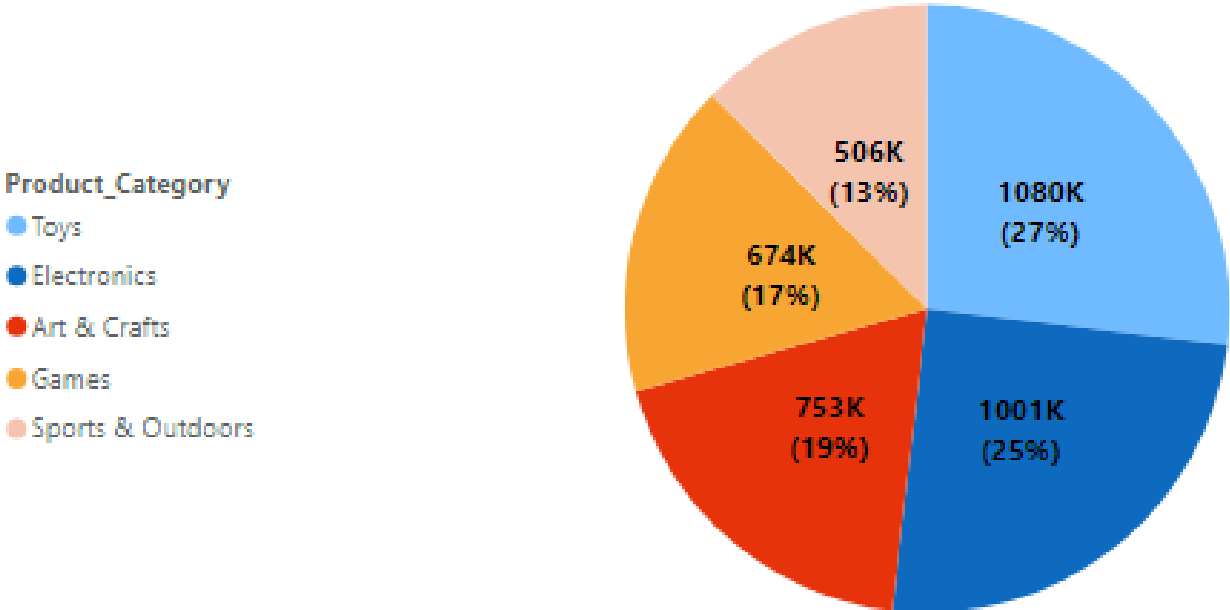
QUERIES AND VISUALIZATION

QUERY 1: PRODUCT CATEGORIES DRIVING PROFITS

```sql
-- Which product categories drive the biggest profits? Is this the same across store locations?

SELECT
    s.Store_ID,
    p.Product_Category,
    SUM(s.Units * (p.Product_Price - p.Product_Cost)) AS TotalProfit
FROM [mev_toy].[dbo].[sales-230126-100644] s
JOIN [mev_toy].[dbo].[products-230126-100423] p ON s.Product_ID = p.Product_ID
GROUP BY s.Store_ID, p.Product_Category
```

Results | Messages

	Store_ID	Product_Category	TotalProfit
1	1	Games	13885.00
2	24	Sports & Outdoors	8287.00
3	44	Electronics	24599.00
4	50	Art & Crafts	12445.00
5	17	Toys	31303.00
6	44	Games	9517.00
7	24	Art & Crafts	9818.00
8	27	Electronics	9335.00
9	34	Toys	19014.00
10	10	Sports & Outdoors	23383.00
11	7	Art & Crafts	17984.00
12	27	Games	10031.00
13	18	Electronics	15811.00
14	43	Toys	14938.00
15	33	Art & Crafts	11208.00

Total_Profit by Product_Category

Product_Category
- Toys
- Electronics
- Art & Crafts
- Games
- Sports & Outdoors

506K (13%)
1080K (27%)
674K (17%)
753K (19%)
1001K (25%)

Toys accounted for **27%** of the Highest Total Profit, while Sports & Outdoors accounted for **13%** of Lowest Total Profit.

QUERY 2: INVENTORY VALUE

```sql
SELECT
    i.Store_ID,
    SUM(i.Stock_On_Hand * p.Product_Price) AS TotalInventoryValue,
    SUM(i.Stock_On_Hand * p.Product_Price) / AVG(daily_sales.DailySales) AS DaysToSellOut
FROM [mev_toy].[dbo].[inventory-230126-100430] i
JOIN [mev_toy].[dbo].[products-230126-100423] p ON i.Product_ID = p.Product_ID
JOIN (
    SELECT Store_ID, AVG(Units) AS DailySales
    FROM [mev_toy].[dbo].[sales-230126-100644]
    GROUP BY Store_ID
) daily_sales ON i.Store_ID = daily_sales.Store_ID
GROUP BY i.Store_ID;
```

Total_Inventory_Value by Store_ID

	Store_ID	TotalInventoryValue
1	23	9654.96
2	46	9092.50
3	29	6229.65
4	9	8211.21
5	15	8930.26
6	3	7833.86
7	32	10896.49
8	26	7675.19
9	12	9145.44
10	35	8580.58
11	6	8978.21
12	43	6740.74
13	49	10349.62
14	21	7150.16
15	27	6921.21
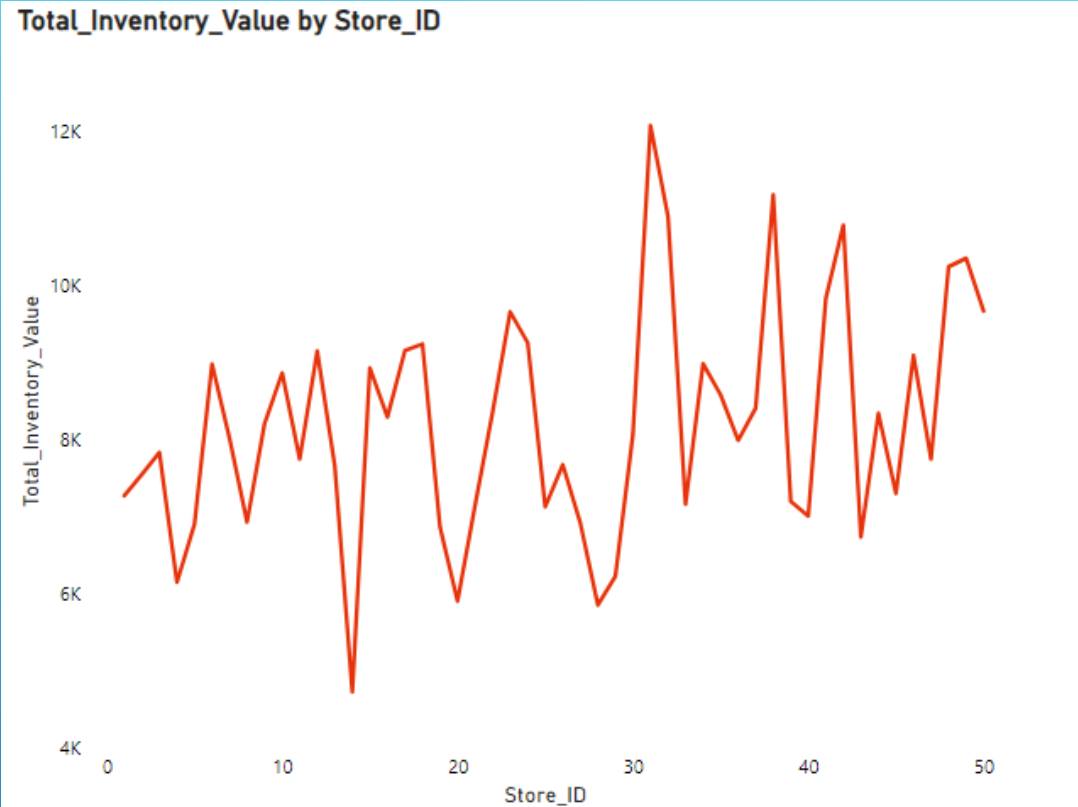
At **12,067.85**, Store_ID 31 had the highest Total_Inventory_Value and was **154.95%** higher than Store_ID 14, which had the lowest Total_Inventory_Value at **4,733.33**.

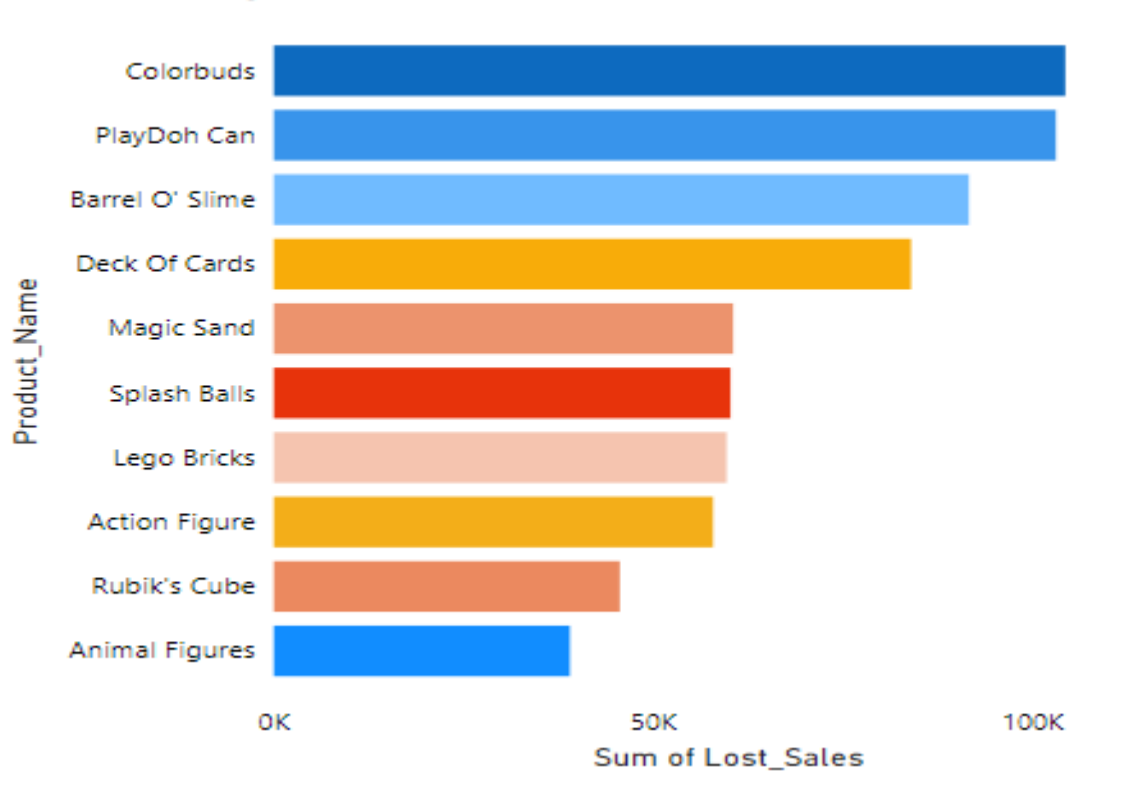Store_ID 31 accounted for **2.94%** of Total_Inventory_Value

Across all 50 Store_ID, Total_Inventory_Value ranged from **4,733.33 to 12,067.85**

QUERY 3: OUT-OF-STOCK AND LOST SALES ANALYSIS

```sql
SELECT
    s.Store_ID,
    p.Product_Name,
    COUNT(CASE WHEN i.Stock_On_Hand = 0 THEN 1 ELSE NULL END) AS OutOfStockCount,
    SUM(s.Units) AS LostSales
FROM [mev_toy].[dbo].[sales-230126-100644] s
JOIN [mev_toy].[dbo].[inventory-230126-100430] i ON s.Store_ID = i.Store_ID AND s.Product_ID = i.Product_ID
JOIN [mev_toy].[dbo].[products-230126-100423] p ON s.Product_ID = p.Product_ID
GROUP BY s.Store_ID, p.Product_Name;
```
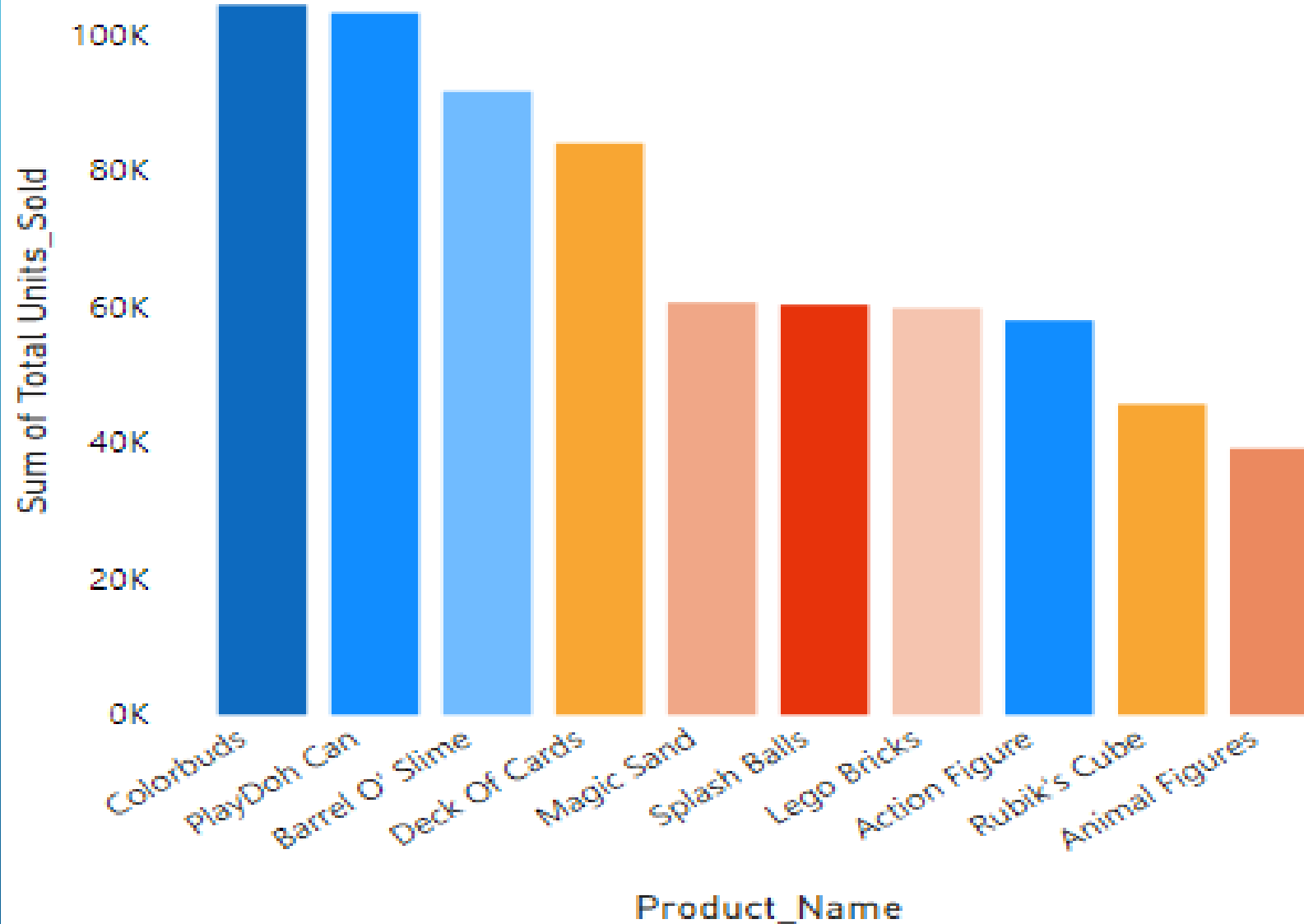

Out Of_StockCount by Product_Name

Lost_Sales by Product_Name
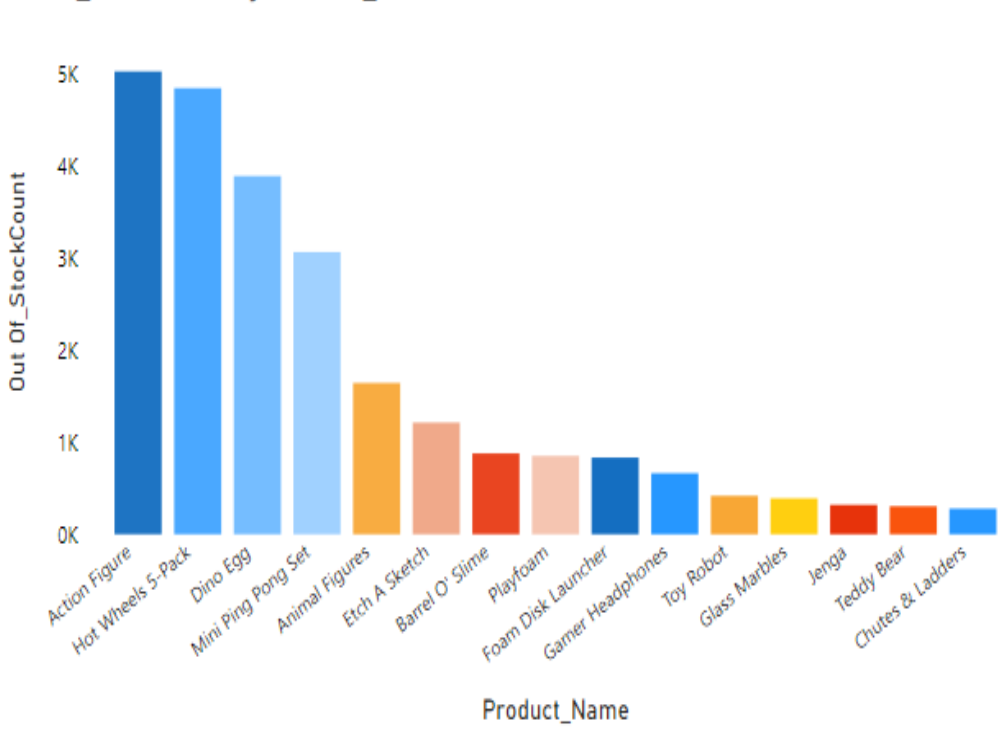
Product Action Figure has the Highest Out of Stock Count and Product Colorbuds has the Highest Lost Sales.

CONCLUSION:

➢ The analysis has uncovered valuable insights into Maven Toys' operations.

➢ Product categories with the highest profits were identified.

➢ Inventory dynamics and potential stockout risks were explored.

➢ Maven Toys demonstrates strengths in certain product categories.

➢ Opportunities exist for strategic growth and optimization.

RECOMMENDATIONS:

➢ Implement real-time tracking to reduce stockouts.

➢ Allocate resources to high-profit product categories.

➢ Introduce promotions or bundles to boost sales in specific areas.

➢ Continue regular analysis to adapt strategies to evolving market trends.

➢ Consider customer feedback and incorporate it into decision-making.

RECOMMENDATIONS FOR FURTHER ANALYSIS:

➤ Assess the efficiency of the supply chain for potential optimizations.

➤ Compare Maven Toys' performance with competitors for industry insights.

➤ Develop predictive models for sales forecasting and inventory planning.

➤ Collaborate with marketing and sales teams to gather qualitative data and enhance analysis.