**Introduction:**

The toy store provides diverse range of products in different store locations. The dataset under consideration encompasses crucial information related to sales transactions, calendar dates, product details, and store information. Analysis of this project seeks to answer the following business questions:

1. What is the average sales of products for each store location
2. What products are most sold by each store location
3. Which year was the most profit gotten?
4. In what month is the most profit gotten and what product is most sold in that month

**Overview:**

The dataset consists of tables which collectively offer insights into the sales operations of a business. The four primary tables are: Sales, Calendar, Products, and Store. The Sales table records key information about each transaction, while the Calendar table aids in temporal analysis. The Products table provides details about the products sold, and the Store table furnishes information about the various retail locations.

**Objective:**

The primary objective of analyzing this dataset is to derive actionable insights that can inform business strategies and optimize sales performance. By examining patterns, trends, and correlations within the data, we aim to identify opportunities for revenue growth, assess product performance, and evaluate the impact of store-related factors on sales.

**Dataset Description:**

**1. Sales Table:**

- Sales ID: Unique identifier for each sales transaction.

- Date: Date of the sales transaction.

- Store ID: Unique identifier for each store.

- Units: Number of units sold in the transaction.

**2. Calendar Table:**

- Date: Calendar dates for temporal analysis.

**3. Products Table:**

- Product ID: Unique identifier for each product.

- Product Name: Name of the product.

- Product Category: Category to which the product belongs.

- Product Price: Price of the product.

**4. Store Table:**

- Store ID: Unique identifier for each store.

- Store Name: Name of the store.

- Store City: City where the store is located.

- Store Location: Specific location within the city.

- Store Opening Date: Date when the store was opened.

**Methodology:**

The analysis involved exploring relationships between sales, time, products, and store-related factors. Descriptive statistics, temporal trends, and correlations is examined. Additionally, data visualization techniques using Microsoft Powe BI was employed to enhance the interpretability of the findings

**Expected Outcomes:**

1. Identification of high-performing products and categories.

2. Evaluation of the impact of store locations on sales.

3. Temporal trends and seasonality patterns in sales.

4. Insights into the overall performance and growth potential of the business.

5. Recommendations for strategic improvements in product offerings, store operations, and sales strategies.

**Insights**

From the analysis done on the toy store dataset,

* An average sale per day of $1.49k was made in the airport store location, $4.06k in the Commercial store, $10.3k in the Downtown store location and $2.05k in the Residential store. The Downtown store location made the most yearly profit with the highest profit of $1.21M in the year 2022. This can be attributed to the fact that the Downtown store location has the most stores (29 stores) while the Airport has the least number of stores(3 stores).
* The Colourbud is seen among the most sold product across the 4 store locations which is under the electronic product category although the Toys product category is seen to be the most sold item across the 4 store locations and accounts for the most profit by category in the downtown and residential store location.
* The most profit and revenue was made in the month of Dec in 2022 with a total profit of $246.08k and having a total orders of 48,380 in that month. The Maven Toys Xalapa 2 store made the most profit of about $49,636 in that year.
* The least sales and profit was made in the year 2021 with the Maven Toys Villahermosa 1 made the highest profit of $344 in that year.

**RECOMMENDATION**

Based on the insights generated from the analysis, here are some recommendations:

**Store Location Analysis:**

Allocate more resources and marketing efforts towards the Downtown store location, as it has demonstrated the highest profitability among all locations. Consider expanding the footprint of the Downtown stores to further capitalize on its success.

Evaluate the performance of the Airport store location and explore strategies to improve sales and profitability despite having fewer stores. This could involve enhancing the product offerings or improving the store layout to attract more customers.

Although Toys emerge as the most sold item across all store locations, prioritize inventory management and ensure sufficient stock availability, especially during peak seasons such as December, to maximize sales potential and capitalize on profitability.

**Seasonal Trends and Performance**:

Capitalize on the strong performance observed in December 2022 by strategically planning promotions or introducing exclusive holiday-themed products to drive sales during this lucrative period.

Analyze the factors contributing to the success of the Maven Toys Xalapa 2 store in generating the highest profit in December 2022. Consider replicating successful strategies across other store locations to enhance overall profitability.

**Yearly Performance Evaluation**:

Despite the overall lower sales and profit in 2021, identify the factors contributing to the success of the Maven Toys Villahermosa 1 store in achieving the highest profit. Explore opportunities to replicate successful strategies in other store locations to improve overall performance in the future.

**Expansion and Market Penetration**:

Consider expanding the product offerings or introducing new product categories in store locations where sales and profitability are relatively lower, such as the Airport and Residential stores, to diversify revenue streams and attract a wider customer base.

Evaluate the feasibility of opening additional stores in high-performing locations, such as Downtown, to further capitalize on their profitability and market demand.

By implementing these recommendations, the business can optimize its operations, capitalize on profitable opportunities, and address challenges to drive overall growth and success across all store locations. Regular monitoring and analysis of sales data will be essential to track the effectiveness of these strategies and make necessary adjustments over time.