

# Walmart Business Problems

## 1. Analyze Payment Methods and Sales

- **Question:** What are the different payment methods, and how many transactions and items were sold with each method?
- **Purpose:** This helps understand customer preferences for payment methods, aiding in payment optimization strategies.

## 2. Identify the Highest-Rated Category in Each Branch

- **Question:** Which category received the highest average rating in each branch?
- **Purpose:** This allows Walmart to recognize and promote popular categories in specific branches, enhancing customer satisfaction and branch-specific marketing.

## 3. Determine the Busiest Day for Each Branch

- **Question:** What is the busiest day of the week for each branch based on transaction volume?
- **Purpose:** This insight helps in optimizing staffing and inventory management to accommodate peak days.

## 4. Calculate Total Quantity Sold by Payment Method

- **Question:** How many items were sold through each payment method?
- **Purpose:** This helps Walmart track sales volume by payment type, providing insights into customer purchasing habits.

## 5. Analyze Category Ratings by City

- **Question:** What are the average, minimum, and maximum ratings for each category in each city?
- **Purpose:** This data can guide city-level promotions, allowing Walmart to address regional preferences and improve customer experiences.

## 6. Calculate Total Profit by Category

- **Question:** What is the total profit for each category, ranked from highest to lowest?
- **Purpose:** Identifying high-profit categories helps focus efforts on expanding these products or managing pricing strategies effectively.

## 7. Determine the Most Common Payment Method per Branch

- **Question:** What is the most frequently used payment method in each branch?
- **Purpose:** This information aids in understanding branch-specific payment preferences, potentially allowing branches to streamline their payment processing systems.

## 8. Analyze Sales Shifts Throughout the Day

- **Question:** How many transactions occur in each shift (Morning, Afternoon, Evening) across branches?
- **Purpose:** This insight helps in managing staff shifts and stock replenishment schedules, especially during high-sales periods.

## 9. Identify Branches with Highest Revenue Decline Year-Over-Year

- **Question:** Which branches experienced the largest decrease in revenue compared to the previous year?
- **Purpose:** Detecting branches with declining revenue is crucial for understanding possible local issues and creating strategies to boost sales or mitigate losses.

## 10. Track Monthly Sales Trends Across Branches

- **Question:** What are the monthly sales trends for each branch over the past year?
- **Purpose:** Helps identify seasonal fluctuations and plan promotions, staffing, or stock accordingly.

## 11. Compare Average Transaction Value by Payment Method

- **Question:** What is the average transaction value for each payment method?
- **Purpose:** Highlights which methods are associated with larger purchases, guiding incentives or loyalty programs.

## 12. Determine Most Popular Item per Category

- **Question:** Which item had the highest sales volume within each category across branches?
- **Purpose:** Spotlights bestsellers and aids in inventory prioritization and marketing efforts.

## 13. Evaluate Sales Performance by Hour

- **Question:** What is the sales volume distribution by hour across branches?
- **Purpose:** Fine-tunes shift planning and helps target specific hours for promotions or discounts.

#### 14. Identify High-Revenue Categories by City

- **Question:** Which categories generate the highest revenue in each city?
- **Purpose:** Supports city-specific marketing strategies and improves category-level investment decisions.

#### 15. Analyze Customer Ratings by Gender

- **Question:** What are the average product ratings based on customer gender across branches?
- **Purpose:** Offers insights into gender-based preferences, helping tailor product selection or campaigns.