

# Walmart Sales Business Problems

## 1. Payment Method Analysis

- **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 and transaction fee negotiations.
- **Business Impact:** Understanding customer payment preferences enables optimization of payment processing systems, reduction of transaction fees, and enhancement of customer checkout experience.

## 2. Category Performance by Branch

- **Question:** Which category received the highest average rating in each branch?
- **Purpose:** This allows businesses to recognize and promote popular categories in specific branches, enhancing customer satisfaction and branch-specific marketing strategies.
- **Business Impact:** Identifying top-performing categories per branch allows for targeted marketing, optimized inventory allocation, and branch-specific promotional strategies to maximize customer satisfaction.

## 3. Peak Transaction Days Analysis

- **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 and improve operational efficiency.
- **Business Impact:** Optimizes staffing schedules, inventory management, and operational planning to accommodate peak demand periods, reducing wait times and improving customer service.

## 4. Sales Volume by Payment Method

- **Question:** How many items were sold through each payment method?
- **Purpose:** This helps businesses track sales volume by payment type, providing insights into customer purchasing habits and payment processor performance.
- **Business Impact:** Provides insights into customer purchasing patterns, helping to streamline payment processes and potentially negotiate better rates with payment processors.

## 5. Regional Category Performance

- **Question:** What are the average, minimum, and maximum ratings for each category in each city?
- **Purpose:** This data can guide city-level promotions, allowing businesses to address regional preferences and improve customer experiences through localized strategies.
- **Business Impact:** Enables city-level marketing strategies, identifies regional preferences, and guides local product mix decisions to improve customer satisfaction and regional performance.

## 6. Profitability Analysis 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 to maximize returns.
- **Business Impact:** Focuses business efforts on high-margin categories, informs pricing strategies, and guides product portfolio decisions to maximize overall profitability.

## 7. Branch-Specific Payment Preferences

- **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.
- **Business Impact:** Allows branches to optimize their payment infrastructure, potentially reducing processing costs and improving transaction efficiency.

## 8. Sales Distribution Across Time Shifts

- **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 for optimal resource allocation.
- **Business Impact:** Optimizes staff scheduling, inventory replenishment timing, and operational costs while ensuring adequate coverage during peak sales periods.

## 9. Revenue Trend Analysis

- **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.
- **Business Impact:** Early identification of declining branches enables proactive intervention strategies, resource reallocation, and targeted improvement initiatives.

## 10. Rating vs. Profitability Correlation

- **Question:** Are the highest-rated categories also the most profitable?
- **Purpose:** This analysis helps balance customer satisfaction with profitability, guiding strategic decisions about product focus and investment priorities.
- **Business Impact:** Balances customer satisfaction with profitability, guiding product strategy and helping identify opportunities for margin improvement in popular categories.

## 11. Weekend vs. Weekday Spending Patterns

- **Question:** Do customers spend more on weekends than weekdays in each branch?
- **Purpose:** This analysis reveals temporal spending patterns that can inform promotional timing, staffing decisions, and inventory planning strategies.

- **Business Impact:** Informs promotional timing, staffing decisions, and inventory planning based on spending patterns throughout the week.

## 12. Revenue Consistency Analysis

- **Question:** Which branch has the most consistent daily sales (low volatility)?
- **Purpose:** This identifies stable revenue streams and highlights branches that may need additional support to improve sales consistency and predictability.
- **Business Impact:** Identifies stable revenue streams and branches that may need additional support or strategic interventions to improve consistency.

## 13. Seasonal Category Trends

- **Question:** Are some categories more popular in certain months?
- **Purpose:** This analysis enables seasonal planning and helps businesses prepare for predictable fluctuations in category demand throughout the year.
- **Business Impact:** Enables seasonal inventory planning, targeted marketing campaigns, and optimized product placement strategies throughout the year.

## 14. High-Impact Branch-Category Combinations

- **Question:** Which branch-category pairs contribute the most to overall revenue?
- **Purpose:** This identifies the most valuable business segments, helping focus resources and investments on the highest-performing combinations.
- **Business Impact:** Focuses resources on the highest-impact combinations, optimizing inventory investment and marketing spend for maximum ROI.

## 15. Profit Efficiency by Branch

- **Question:** Which branch achieves the highest profit per customer transaction?
- **Purpose:** This analysis identifies best-performing branches and operational practices that can be studied and replicated across the network.
- **Business Impact:** Identifies best practices from high-performing branches and guides operational improvements across the network.