



Sales Analysis

[Sales Analysis.xlsx](#)

Part 1: Analytics and Data Management

Trends and Analysis

1. Number of Leads:

| Month | Number of Leads |
|----------|-----------------|
| January | 1500 |
| February | 1600 |
| March | 1700 |

▲ An increase of **13.3%** is a **positive** trend.

2. Conversion to the first transaction:

| Month | Conversion to First Deal |
|----------|--------------------------|
| January | 14% |
| February | 12% |
| March | 10% |

▼ A decrease of **29%** is a **negative** trend.

3. Average check for the first transaction:

| Month | Average First Transaction Check |
|---------|---------------------------------|
| January | 9000 |

| Month | Average First Transaction Check |
|----------|---------------------------------|
| February | 8500 |
| March | 8000 |

▼ A decrease of **11.11%** is a **negative** trend.

4. **Average number of repeat purchases:**

| Month | Average number of repeat purchases |
|----------|------------------------------------|
| January | 1.7 |
| February | 1.5 |
| March | 1.3 |

▼ A decrease of **23.53%** is a **negative** trend.

5. **Average check of a repeat transaction:**

| Month | Average repeat transaction check |
|----------|----------------------------------|
| January | 7000 |
| February | 6800 |
| March | 6500 |

▼ A decrease of **7.14%** is a **negative** trend.

6. **Gone after the first trade:**

| Month | Gone after the first deal |
|----------|---------------------------|
| January | 7000 |
| February | 6800 |
| March | 6500 |

▼ An increase of **18.42%** is a **negative** trend.

Conclusion

The main negative trends are related to deteriorating conversion rates, lower average check and fewer repeat purchases. To remedy the situation, it is

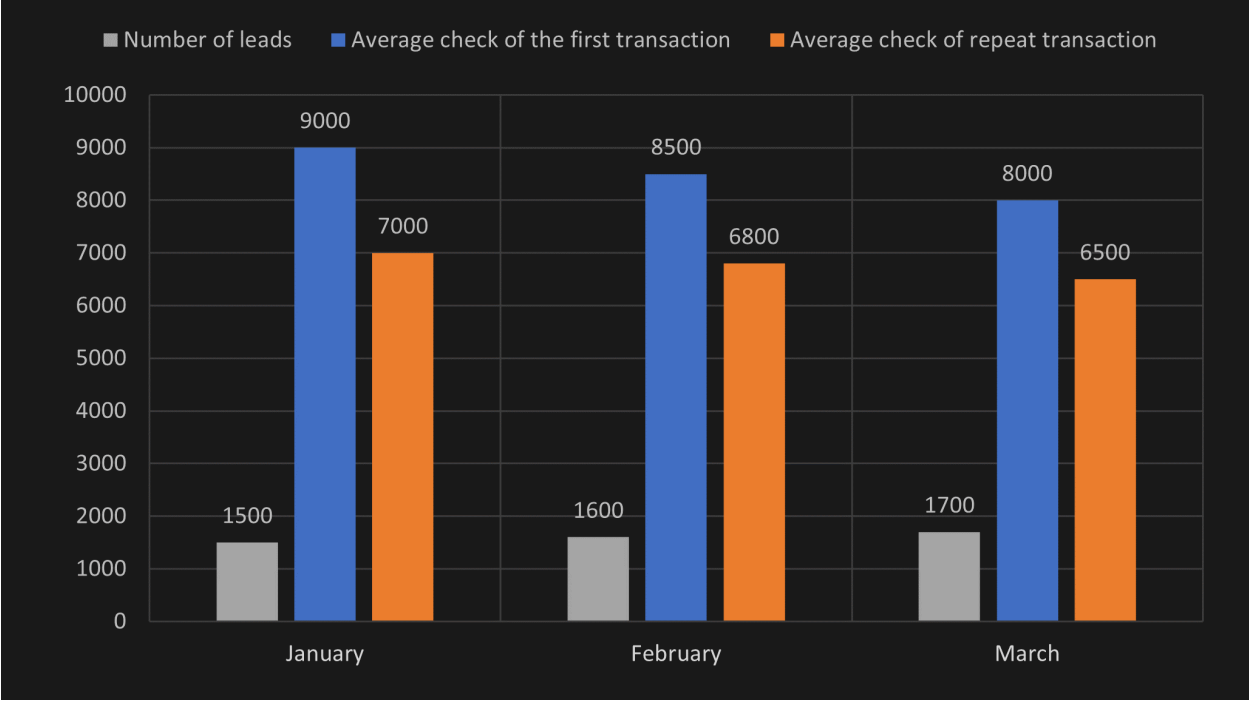
important to work on lead quality, customer loyalty and strategies to increase the amount of purchases.

Reasons and Recommendations for Metrics Trends

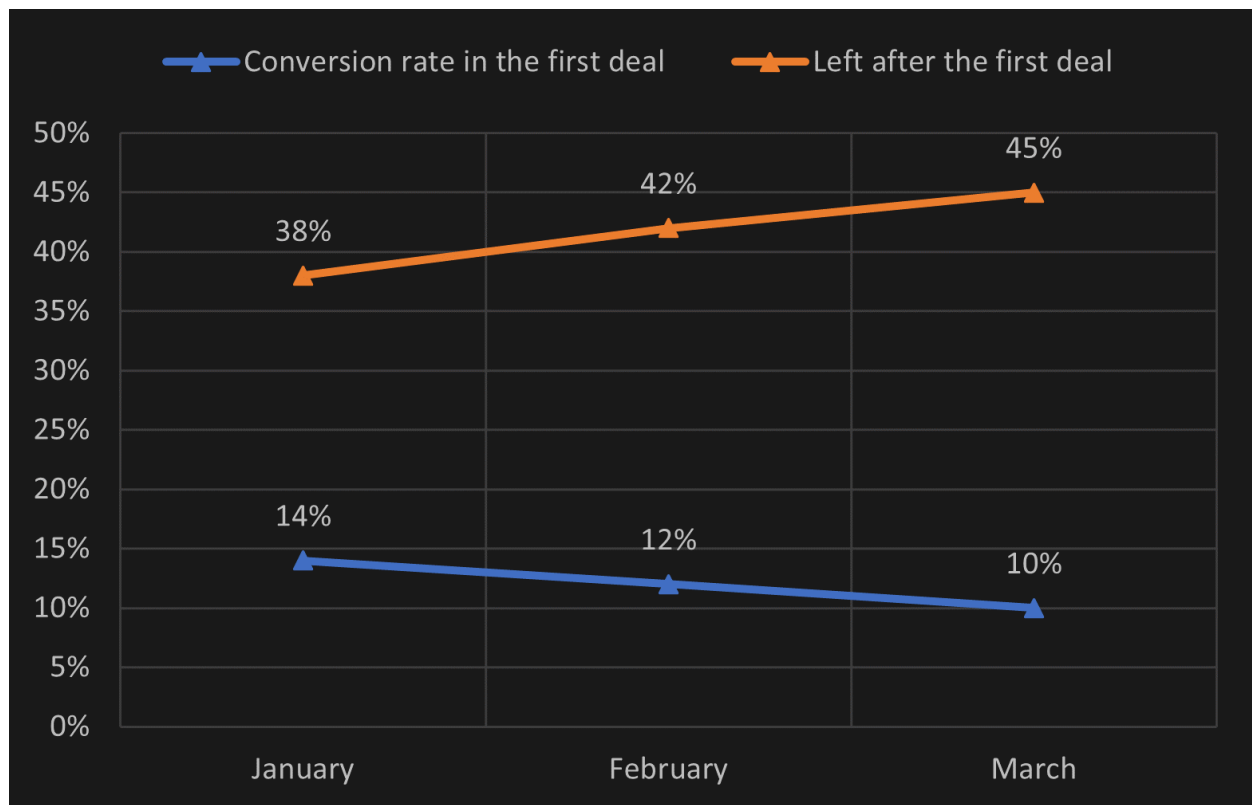
| Metric | Trend | Possible Causes | Recommendations |
|------------------------------|----------------|---|---|
| Number of Leads | +13,3% | Effective marketing | Optimize ad campaigns for further growth. |
| First Deal Conversion | -28.57% | The terms of the first deal became less attractive. | Improve lead qualification and train the sales team |
| Average First Deal Check | -11.11% | Customers choose cheaper options | Develop upsell strategies |
| Average Repeat Purchase | -23.53% | Ineffective retention strategies | Conduct customer satisfaction survey |
| Average Repeat Purchase | -7.14% | Reduced number of purchases / price reductions | Develop subscription models or programs with accumulative discounts |
| Gone After First Transaction | +18.42% | Bad post-purchase experience | Analyze feedback and reasons for not making repeat purchases |

Data Visualization

Graph of changes in the number of leads, average check of the first and repeat transactions



Graph of changes in conversion to the first deal and the number of people who left after the first deal.



Part 2: Cohort Analysis

Cohort Table

| Month | First purchase | Repeat purchase after 1 month | Repeat purchase in 2 months |
|----------|----------------|-------------------------------|-----------------------------|
| January | 210 | 105 (50%) | 85 (40%) |
| February | 192 | 84 (44%) | 68 (35%) |
| March | 170 | 68 (40%) | - |

Trend Analysis

- **January cohort:**
 - After 1 month: 50% repeat purchases.
 - After 2 months: 40% repeat purchases.

- **Decrease:** By 10 percentage points in the second month.
- **February cohort:**
 - After 1 month: 44% repeat purchases.
 - After 2 months: 35% repeat purchases.
 - **Decrease:** By 9 percentage points in the second month.
- **March cohort:**
 - After 1 month: 40% repeat purchases.
 - Data for 2 months is not yet available.

Trend:

- Repeat purchases decline over time for all cohorts.
 - The **January cohort** shows the largest decline (down 10 percentage points in the second month).
 - The **March cohort** shows the lowest repeat purchase rate after 1 month (40%), which may indicate worsening customer retention.
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Using cohort analysis to improve customer retention

Cohort analysis helps you identify customer retention problems and develop strategies to address them. Here are some recommendations:

Recommendations

1. Improve interactions after the first purchase:

- Implement a follow-up system (e.g., thank-you letters, requests for feedback).
- Offer customers discounts or bonuses for repeat purchases.

2. Loyalty programs:

- Create a loyalty program that encourages customers to return (e.g., savings points or discounts for repeat purchases).

3. Personalization:

- Use purchase data for personalized offers (e.g., product recommendations based on past purchases).

4. Analyze the causes of churn:

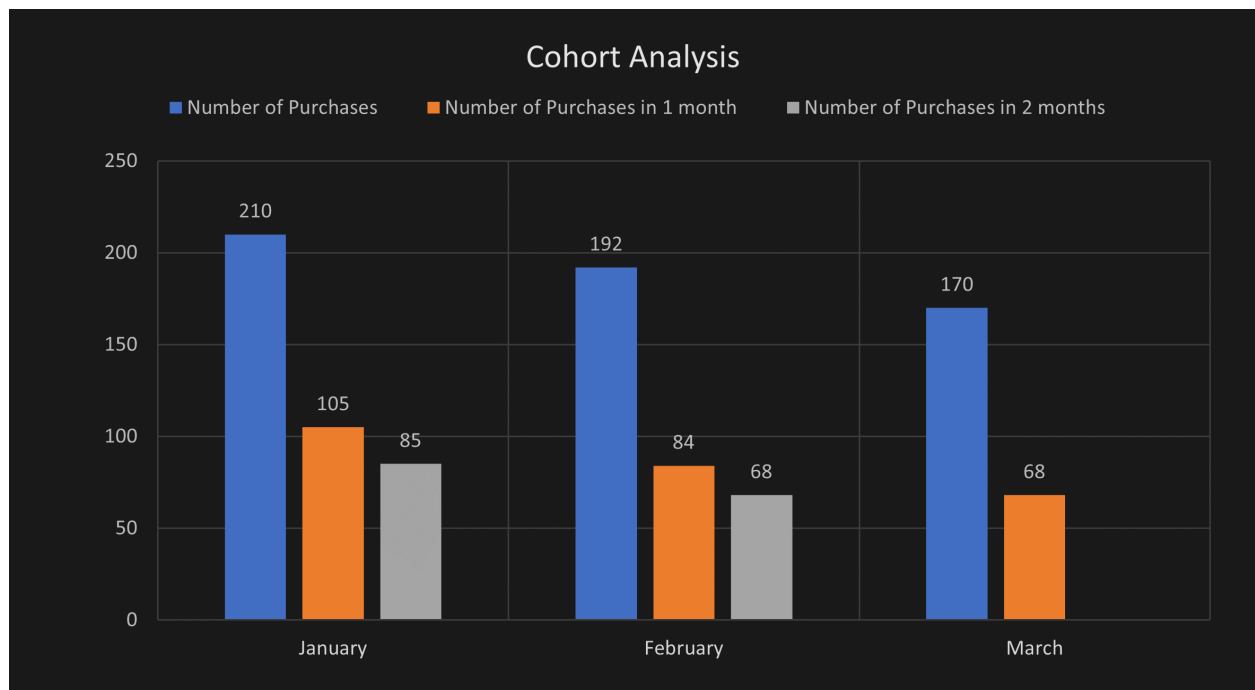
- Gather feedback from customers who haven't returned to understand their reasons.
- Address issues that may be causing churn (e.g., product or service quality).

5. Improve onboarding:

- Simplify the onboarding process for new customers (e.g., training materials, post-purchase support).

Visualization

Graph of changes in number of purchases over 3 months



Bottom line

Cohort analysis shows that customer retention is declining over time, especially in the March cohort. To improve retention, you need to:

- Improve customer interactions after the first purchase.
 - Implement loyalty programs and personalized offers.
 - Analyze the causes of churn and address them.
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Part 3: Applying Neural Networks to Automation

Choosing a process to automate

Process: Analyze customer feedback.

Why this process.

- Customer feedback contains a lot of valuable information, but analyzing it manually requires significant time and human resources.
 - Automating feedback analysis can help you quickly identify key themes, sentiments, and customer concerns.
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Neural Network Application

Neural network: GPT (e.g., GPT-4).

How it will help:

- **Feedback classification:** A neural network can automatically categorize reviews by topic (e.g., product quality, delivery, service).
 - **Sentiment analysis:** Determining the tone of reviews (positive, neutral, negative).
 - **Insights Extraction:** Identify frequently mentioned problems or suggestions from customers.
 - **Report generation:** Automatically create summaries and visualizations based on analysis.
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Example query for GPT

Analyze the following customer reviews and complete the following tasks:

1. Classify reviews by topic (e.g. product quality, delivery, service).
2. Determine the sentiment of each review (positive, neutral, negative).
3. Identify the most frequently mentioned issues and suggestions.
4. Create a summary of key insights and visualize the data in a table and charts.

Sample reviews:

1. "Delivery was fast, but the quality of the product leaves much to be desired."
2. "The service was excellent, thank you!"
3. "The order arrived late and the product was damaged."
4. "Very pleased with the quality, will recommend to friends."

Benefits

Resources saved

- **Time Resources:** Automating feedback analysis will reduce the processing time from hours to minutes.
- **Human Resources:** Analysts will be able to focus on strategic tasks rather than routine feedback processing.

Improved metrics

- **Customer satisfaction:** Quickly identifying and fixing issues will improve customer satisfaction.
 - **Customer Retention:** Responding to negative reviews in a timely manner will help reduce customer churn.
 - **Marketing Effectiveness:** Analyzing positive reviews will help identify product strengths and leverage them in marketing campaigns.
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Bottom Line

Using GPT to automate the analysis of customer reviews will allow to:

- Save time and human resources.
- Quickly identify key issues and improve service quality.
- Increase customer satisfaction and retention.