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# Customer Acquisition Cost Analysis - E-Commerce Sector

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## Overview

Today's task is a comprehensive analysis of Customer Acquisition Cost (CAC) and Customer Lifetime Value (LTV) across various referral statuses, reward types, and marketing campaigns, yielding insights into their effectiveness and informing future acquisition strategies.

## Objective

The main goals of today's analysis were to evaluate the impact of referral and reward statuses on Average Order Value (AOV), assess the effectiveness of different marketing campaigns through Customer Acquisition Cost (CAC) and Customer Lifetime Value (LTV), and derive actionable insights for optimizing customer acquisition strategies.

## Assigned Task(s)

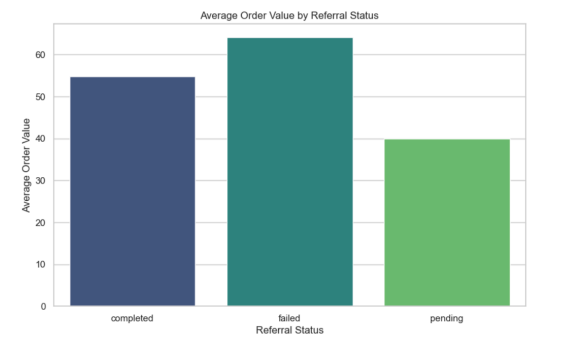
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## Task Details

- Task 19: The task involved analyzing customer acquisition costs through evaluating referral and reward statuses' impact on Average Order Value (AOV) and assessing the effectiveness of various marketing campaigns. The goal was to identify strategies to optimize customer acquisition and enhance spending.
- Status : Completed
- Details : Today, we conducted a comprehensive analysis of customer acquisition costs, focusing on three key areas:
  1. **Referral Status Analysis:** We evaluated how different referral statuses—Completed, Failed, and Pending—affect Average Order Value (AOV). The findings indicated that Failed Referrals had the highest AOV, while Pending Referrals had the lowest.
  2. **Reward Status Analysis:** We examined the AOV across various reward statuses, revealing that customers with Granted rewards exhibited the highest spending, suggesting that rewards effectively encourage larger purchases.
  3. **Campaign Effectiveness Analysis:** We assessed the effectiveness of different marketing campaigns (No Campaign, Email, SMS, and Social Media) in driving customer spending. The analysis highlighted Social Media campaigns as the most effective in generating higher AOVs.

## Progress

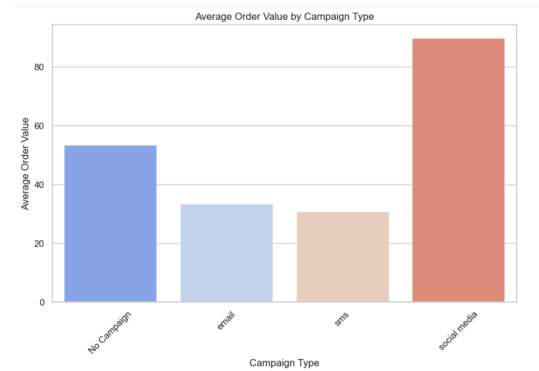
- Accomplishments :
  - Completed a comprehensive analysis of customer acquisition costs, yielding insights on the impact of referral and reward statuses on Average Order Value (AOV).
  - Evaluated the effectiveness of different marketing campaigns, identifying social media as the most successful in driving higher AOV.
  - Developed clear visualizations and interpretations of key metrics, facilitating data-driven decision-making for future marketing strategies.
- Metrics: Relevant metrics demonstrating progress include:
  1. **Average Order Value (AOV):**
    - **Referral Status:**
      - Completed: \$54.82
      - Failed: \$64.12
      - Pending: \$39.98



- **Reward Status:**
  - No Reward: \$175
  - Expired: \$200
  - Granted: \$225
  - Pending: \$175



- **Campaign Effectiveness:**
  - No Campaign: \$55.43
  - Email: \$35.53
  - SMS: \$30.81
  - Social Media: \$90.78



## 2. Customer Acquisition Cost (CAC):

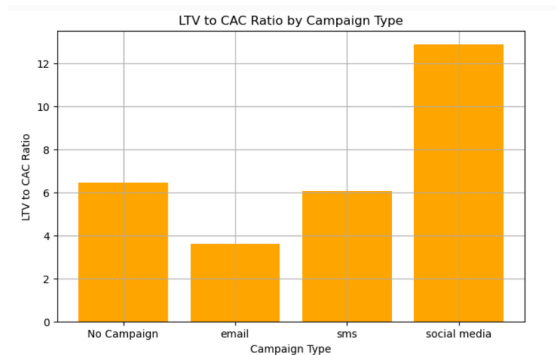
- No Campaign: \$8.29
- Email: \$9.28
- SMS: \$5.08
- Social Media: \$6.97

## 3. LTV (Customer Lifetime Value):

- Social Media: \$111.15
- No Campaign: \$62.63
- Email: \$37.72
- SMS: \$35.22

## 4. LTV to CAC Ratios:

- Social Media: 12.89
- No Campaign: 6.45
- SMS: 6.06
- Email: 3.61



## Challenges and Solutions

- Challenge Faced :
  - Data Integration: Merging data from various sources was time-consuming and required careful validation for accuracy and consistency.
  - Metric Analysis: Interpreting complex metrics, such as LTV to CAC ratios, involves extra validation to ensure actionable insights.
  - Visualization Clarity: Developing effective visualizations that clearly represented data required multiple revisions for clarity and impact.
  - Data Quality Issues: Incomplete or inconsistent entries in the merged acquisition dataset necessitated additional cleaning, complicating the analysis.
- Solutions Faced :
  - Data Integration: Utilized robust data validation techniques to ensure the accuracy of merged datasets, which involved cross-checking with original sources to resolve discrepancies.
  - Metric Analysis: Created detailed documentation for interpreting metrics, including LTV to CAC ratios, to standardize understanding and streamline analysis across team members.
  - Visualization Clarity: Engaged in iterative design reviews, gathering feedback from colleagues to refine visualizations and enhance their clarity and impact.
  - Data Quality Issues: Implemented a systematic cleaning process to address incomplete entries, including filling missing values with appropriate defaults and removing duplicates.

## Next Step

- Upcoming Task : Create a presentation summarizing the key findings and insights from the analysis.
- Goals : Develop a roadmap for further analyses based on the findings, including monitoring customer acquisition costs and exploring additional areas for optimization

## Conclusion

- Summary :
  - Customer Acquisition Cost (CAC) Analysis: Evaluated the effectiveness of various marketing campaigns (No Campaign, Email, SMS, Social Media) in terms of CAC, Customer Lifetime Value (LTV), and LTV to CAC ratio.
  - Referral and Reward Status Analysis: Analyzed how referral statuses (Completed, Failed, Pending) and reward statuses (No Reward, Expired, Granted, Pending) impact Average Order Value (AOV) and overall revenue.

- Visualizations: Created graphs to illustrate findings, highlighting the differences in AOV across referral statuses, reward statuses, and campaign types, with Social Media demonstrating the highest AOV.
- Challenges Encountered: Addressed issues related to data discrepancies and calculations during the analysis phase.
- Solutions Implemented: Utilized data cleaning techniques and recalibrated metrics to ensure accurate insights.
- Upcoming Tasks: Planned to finalize the report, develop a presentation, and identify actionable insights for improved marketing strategies
- Acknowledgement: Thank you for your time and attention.