

# Enhancing the Marketing Campaign- Analysis Report

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## Summary:

Optimizing a marketing campaign involves continuously improving its performance and effectiveness through data-driven strategies and adjustments. By analyzing campaign data, identifying successful tactics, and making data-informed decisions, businesses can enhance targeting, messaging, and overall return on investment (ROI). This process ensures that marketing resources are allocated efficiently, leading to improved audience engagement, increased conversions, and better outcomes for the business.

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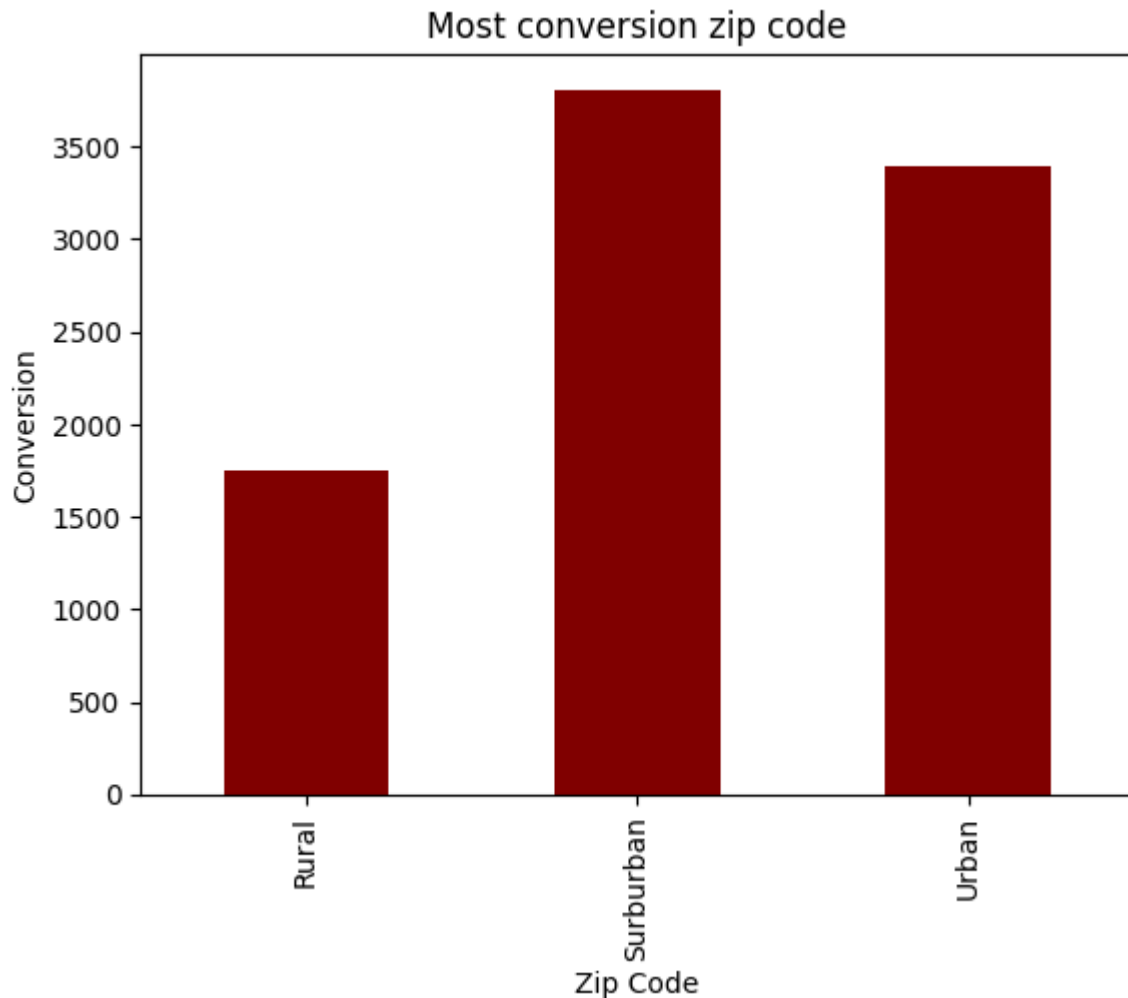
## Methodology:

To conduct this data analysis, a systematic approach was followed to ensure accuracy and reliability in the findings. The methodology encompassed the following steps:

1. **Data Collection:** This marketing campaign data is collected from [kaggle.com](https://www.kaggle.com) , including used\_discount, zip\_code, is\_referral, offer etc...
2. **Data Preprocessing:** Before analysis, the collected data underwent preprocessing steps to ensure its quality and consistency. This involved cleaning the data by removing duplicates, checking for null values, creating a temporary df for analysis purposes.
3. **Data Analysis:** Here we performed the statistical and exploratory data analysis in order to find the insights of our business questions.
4. **Reporting:** The findings, insights, and recommendations were compiled into a comprehensive data analysis report. The report presented the analysis results in a clear and organized manner using visualizations, tables, and concise explanations.

## Key Findings:

1. **What is the zip code most purchased from the ads?**



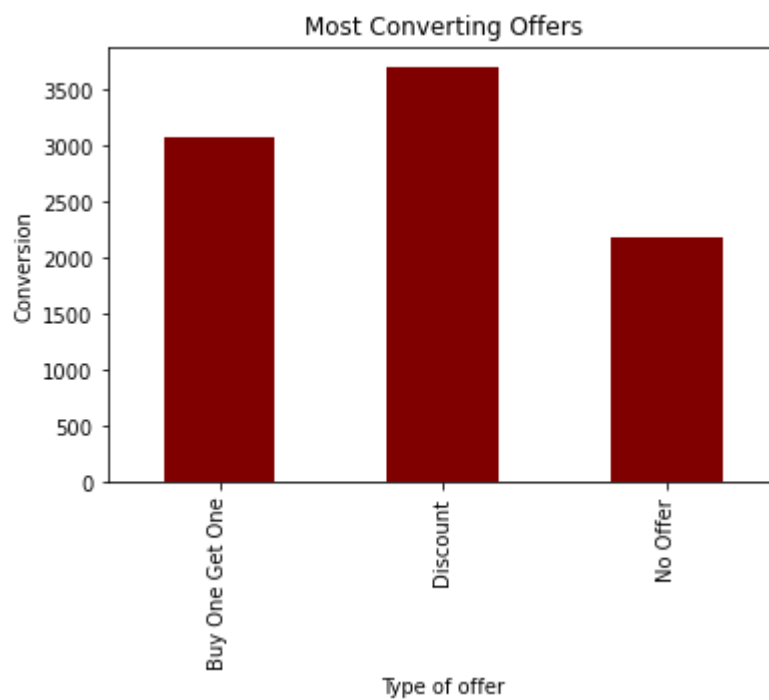
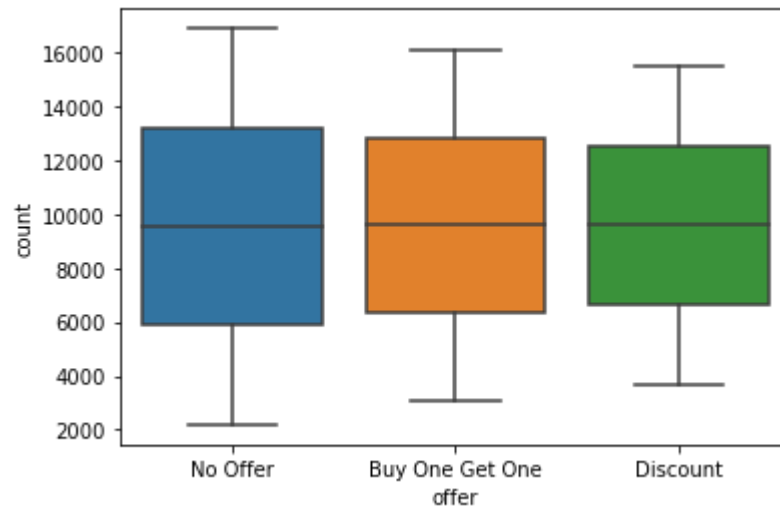
The zip code analysis revealed that **Suburban** areas had the highest purchase rates compared to other locations. This finding was visually represented in a graph.

## 2. Is there a relationship between customers who received a discount and purchases?

To determine the relationship between customers who received a discount and their purchases, the number of purchases for both groups was analyzed. It was found that customers who took a discount made 31,932 purchases, while those who didn't took a discount made 25,465 purchases. Additionally, a low correlation ratio of 0.009534 was observed, indicating a weak relationship. Furthermore, customers who received a discount made a relatively smaller number of purchases (5084) compared to those who didn't.

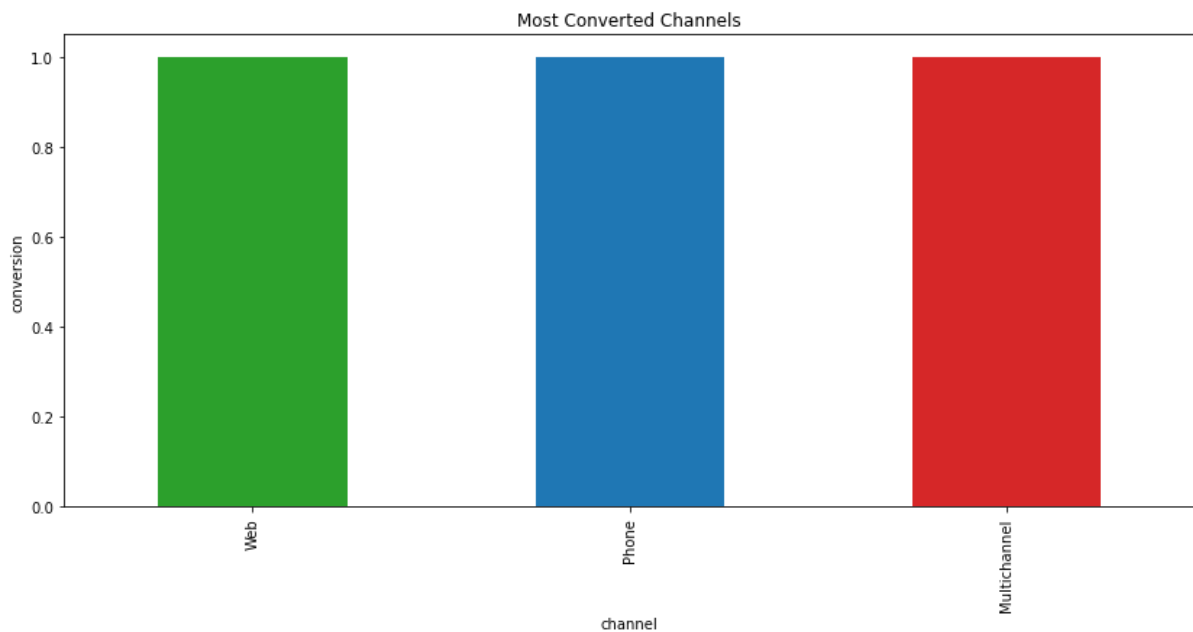
	used_discount	conversion	count
0	yes	no	26848
1	no	no	21588
2	yes	yes	5084
3	no	yes	3877

### 3. Customers who get an offer do they buy?



It was observed that customers who received a discount offer were more likely to make purchases, followed by customers who received a buy one get one free offer.

#### 4. What are the channels that customers use the most and buy through?



The **web** channel was identified as the most commonly used channel for making purchases. Its popularity stems from its convenience, allowing customers to access the platform easily via various devices such as phones or computers.

#### Conclusion:

Targeting marketing efforts towards suburban areas, providing enticing discounts, and focusing on the web channel for easy access can potentially enhance the effectiveness of the marketing campaign and drive customer engagement and sales.