

# Summary Report

## Title: Analysis of Feature Impact on Lead Conversion

### 1. Introduction

- **Objective:** To analyze the impact of various features on lead conversion using a logistic regression model.

### 2. Feature Importance

- **Positive Influences:**
  - **TotalVisits:** Highest coefficient (10.425411) indicates a strong positive impact on lead conversion. More visits strongly increase the likelihood of conversion.
  - **Total Time Spent on Website:** Significant positive impact (4.627988). Longer time spent on the site correlates with higher chances of conversion.
  - **Lead Source\_Welingak Website:** Positive impact (3.608053). Leads from this source are more likely to convert.
  - **Lead Source\_Reference:** Positive coefficient (2.012142). References contribute positively to the conversion rate.
  - **Lead Origin\_Lead Add Form:** Positive impact (1.253685). Leads originating from form submissions are more likely to convert.
- **Negative Influences:**
  - **Page Views Per Visit:** Strong negative impact (-2.655591). More page views per visit correlate with lower conversion likelihood, potentially indicating less engagement per visit.
  - **Last Notable Activity\_Olark Chat Conversation:** Significant negative coefficient (-1.936844). Indicates lower conversion likelihood when the last notable activity was an Olark chat conversation.
  - **Do Not Email:** Very strong negative impact (-1.640358). Marking a lead as "Do Not Email" greatly reduces the likelihood of conversion.
  - **Last Activity\_Email Bounced:** Negative impact (-1.452666). Emails that bounce correlate with a lower conversion chance.
  - **Last Notable Activity\_Email Link Clicked:** Strong negative effect (-1.821895). Clicking on email links negatively impacts conversion.

### 3. Strategic Recommendations

- **For Aggressive Conversion:**
  - **Focus on Positive Features:** Prioritize leads with high values in TotalVisits, Total Time Spent on Website, and those from Welingak Website and Reference sources.

- **Implementation:** Lower the probability threshold for contact, targeting leads with high positive feature values.
- **For Minimizing Unnecessary Calls:**
  - **Avoid Negative Features:** Refrain from contacting leads with characteristics indicating lower conversion likelihood, such as high Page Views Per Visit or marked as Do Not Email.
  - **Implementation:** Raise the probability threshold to focus on leads with fewer negative indicators.

#### 4. Conclusion

- **Summary:** Understanding feature impacts allows for strategic adjustment in lead conversion approaches. Leveraging positive features can maximize conversions, while avoiding negative indicators minimizes inefficient efforts.