Executive Summary:

X Education, an online education company, faces a challenge with a low lead conversion rate, typically around 30%. To improve efficiency, the company aims to identify 'Hot Leads'—those most likely to convert. A logistic regression model was built to assign lead scores between 0 and 100, where higher scores indicate a greater likelihood of conversion. The target conversion rate is set at approximately 80%.

Key Findings

1. **Exploratory Data Analysis (EDA) and Data Preprocessing**:

   - Removed columns with more than 30% null values, columns having more No's than Yes's, and columns with more Select rather than actual values

   - Analyzed and capped outliers at 95%

   - Dummified the variables accordingly

2. **Model Building and Evaluation**:

   - Built a logistic regression model with an accuracy of 82% and an optimal cut-off point around 0.35

3. **Insights from the Model**:

   - Leads with noticeable activity in phone conversations or email have higher chances of converting

   - Leads from certain sources like Olark Chat, Referral Sites, and Organic Search tend to have higher conversion rates

   - Leads who have filled out the form on the website and engaged with multiple activities are more likely to convert

   - Leads from certain countries like India and specific cities like Mumbai have higher conversion probabilities

Recommendations

1. **Focus sales efforts on leads with high scores based on engagement metrics and lead source**

2. **Implement targeted marketing strategies for specific demographics that have higher conversion rates**

3. **Enhance communication efforts, especially phone calls and personalized emails, to engage leads effectively**

4. **Continuously monitor and adjust strategies based on real-time feedback and performance metrics**

Aggressive Lead Conversion Strategy (During Internship Period)

1. **Prioritize high-scoring leads**

2. **Structured outreach plan with phone calls and follow-up emails**

3. **Effective time management and scheduling for interns**

4. **Training for interns on communication techniques and product knowledge**

5. **Use of technology like automated dialing systems and chatbots**

6. **Incentives for interns based on performance metrics**

7. **Feedback loop and continuous monitoring of strategies**

Minimizing Useless Phone Calls (When Target is Met)

1. **Refine lead scoring and focus on leads with scores above 0.7**

2. **Segment leads based on engagement levels and lead source**

3. **Implement a tiered contact strategy with automated initial outreach**

4. **Use CRM data to identify leads with previous interest**

5. **Set clear guidelines for when phone calls are necessary**

6. **Continuous monitoring of conversion rates and adjustment of strategies**

7. **Training for interns and sales team on identifying high-potential leads**

By implementing these strategies and focusing on the key insights from the logistic regression model, X Education can significantly improve its lead conversion rates and effectively target potential customers.