

## Summary

A logistic regression model was employed in a lead-scoring case study to align with business requirements. The analysis revealed that while numerous leads are generated initially, only a fraction transforms into paying customers. The majority of leads hail from India, with Mumbai being the city contributing the highest number.

To enhance the quality of data, certain columns with the 'Select' level were addressed, requiring mandatory selections for customer occupation, specialization, and other relevant aspects. Moreover, leads expressing interest in Better Career Prospects and specializing in Finance Management have a higher probability of conversion.

The data also emphasized the significance of customer engagement, as evidenced by the impact of total visits and time spent on the platform on conversion chances. Notably, leads involved in email interactions, opening emails, and receiving SMS show a higher likelihood of conversion. Therefore, efforts to improve customer engagement through emails, calls, and SMS can be instrumental in lead conversion.

Examining the last notable activity, it was identified that leads engaged through emails exhibit a higher probability of conversion. Additionally, leads with current occupations listed as 'Unemployed' present an opportunity for focused attention.

The study suggests that concentrating on unemployed leads to positive outcomes, as these individuals might be more receptive to educational opportunities. Furthermore, leads pursuing specializations in HR, Finance, and Marketing Management show a higher probability of conversion, indicating targeted approaches for these segments.

In conclusion, the logistic regression model aids in understanding the dynamics of lead conversion, highlighting the significance of customer engagement, lead attributes, and targeted strategies. The insights obtained from this study provide valuable information for optimizing lead conversion processes and tailoring efforts based on lead characteristics.