ARRESTING CHURN THROUGH MACHINE LEARNING FOR DIGITAL BUSINESS

PROJECT OVERVIEW

A high churn rate of 60% was seen by the client's small and medium business (SMB) customer base, which operates a lead generation business in the local services sector. Indium Software was chosen to examine historical transaction data and customer data in order to ascertain the causes of churn, the traits of churners, the buying cycle phase of churners, and elements that could assist in preventing churn.

SOLUTION DELIVERED

Advanced Analytics

CLIENT DOMAIN

Digital Native / ISV

KEY HIGHLIGHTS

- Successful identification of customers at high risk of churn.
- Achieved a 10% reduction in churn within 6 months.
- Implementation of a dedicated Customer Happiness Team to proactively engage with high-risk customer cohorts.
- Resulted in increased contract renewals and a significant growth in revenues.

ABOUT CLIENT

The client is a leader in the $200B local services market in India and for NRIs in the USA, Canada, UK, and UAE. Their platform is designed to help users minimize the time spent on finding the right local service provider, reduce service costs, and minimize the hassle of dealing with service providers. With a user base of 25 million and 5 million businesses serving them each month across various local service categories and geographies, the client has established a strong presence in the industry.

BUSINESS CHALLENGES

The client operates a lead generation service in the local services space and has been experiencing a high churn rate among its Small and Medium Businesses (SMB) customer base.

The sole point of contact the client had with its SMB customers was through a business app. However, a significant number of customers had not yet started engaging with the app.

As a result, approximately 60% of customers churned out of the system. The client sought to address this issue by gaining insights into the characteristics of these churners.

SOLUTION HIGHLIGHTS

- The customers provide their business details when they engage with the client, and various transaction-related data is auto-generated when they receive leads from the client. Some interesting data points include the number of leads in a month, the time interval between leads, and the number of leads serviced.

- Data preparation from the raw customer data posed a significant challenge in creating a machine learning model. The sales team's aggressive approach often led to overwriting existing subscription details, resulting in a lack of uniqueness in the customer data and making it difficult to profile a merchant within a specific duration.

- To address this, Indium Software structured the business details and transaction data, performed data engineering to derive multiple aggregates, and created a comprehensive profile for the merchants. This data preparation work laid a solid foundation for building machine learning models.

- We applied various classification machine learning algorithms, such as Decision Trees, CART, and Random Forest, to the prepared data. By using Random Forest, we were able to eliminate bias in training the model that could have skewed the results towards churned customers (90% churned customers vs. 10% retained customers).

- The chosen machine learning algorithms also helped identify factors that influenced customer churn, such as lead deliveries, paid amounts, and time elapsed.

BUSINESS IMPACT

- **Insight:** We successfully identified cohorts of customers who were at high risk of churn. The model revealed that the likelihood of a customer churning was highest during their first 6 months of service.

- **Action:** In response, the client implemented a Customer Happiness Team that promptly reached out to these identified risky cohorts.

- **Result:** Within 6 months, churn was reduced by 10%. This led to a significant increase in revenues as the average lifetime value per customer grew, driven by higher contract renewals.

TECH STACK

R Programming   Shiny   MySQL   DECISION TREE

CART   Random Forests

ABOUT INDIUM

Indium Software is a fast-growing Digital Engineering company, focused on building modern solutions across Applications, Data, and Gaming for its clients. With deep expertise in next-gen offerings combining data and applications, Indium offers a wide range of services including Product Engineering, Low-Code development, Data Engineering, Ai/ML, Digital Assurance, and end-to-end Gaming services.

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