

**Summarize the Understanding of How this project can help the business in achieving the strategic goals.**

## Summary

Santander bank started in Spain, but they been serving customers in Northeastern United States. At Santander, mission is to help people and businesses prosper. We are always looking for ways to help our customers understand their financial health and identify which products and services might help them achieve their monetary goals. At Santander, we believe respecting customer and their money is the first step on the journey to prosperity.

The project analysed how to preemptively understand if customers of Santander will be dissatisfied using Machine Learning. A semi-anonymized dataset, to protect the privacy of the customers, provided difficulties in asserting what could be relevant or not, especially in light of a huge feature set. However, a thorough data analysis helped in predicting the important variables where the bank can focus on.

The problem statement of this project is need to identify which customers who will make a specific transaction in the future, irrespective of the amount of money transacted. In this project, we have details about whether the customer will make a transaction or not. The number of customers those will not make a transaction is around 90% of train dataset and those will make a transaction is around 10% of train dataset. As the labels of variables are missing, it was difficult to know what products customers might have bought and so it's difficult to tell what products customers would prefer mostly. In this project we predicted or identify which customers who will make a specific transaction in future. And also we identified the important variables or products are mostly preferred by customers with 90% accuracy. The top most 20 important variables are var\_13, var\_53, var\_6, var\_34, var\_146, var\_108, var\_94, var\_71, var\_2, var\_166, var\_174 so on and we can see same variables in below plot. So, bank has to focus on those products which are mostly preferred by customers in order to reach strategic goals.

