**Procedure for solving business problem:**



**Business problem:** sales pipeline conversion at a SaaS start-up.

**Business Understanding:**

This assignment is around a case study about Techno Serve, a fictional tech SaaS (Software as a service) start-up that specialises in different types of cloud-based software services to the small and medium enterprise customers.

The products provided by the company are inclined towards increasing the productivity for the customers.

The revenue that the company generates is highly dependent on the consumption of the cloud services that they provide. Therefore, the revenue in-flow in the company is highly dependent on the number of clients that the company has.

The company is facing a very pertinent problem faced in the IT industry today, declining conversions across its sales funnel.

The problem that the company is facing is that its pipeline conversion percentage has dropped from 35% at the end of the last fiscal (FY 2019-20) to 25% at present. The company needs a solution to solve the issue, and they have asked you to come up with one.

Here are a few details about TechnoServe that you should be aware of:

* The company is based out of Pune and started its operations in 2010.
* It has clients spread over Pune and other cities as well.
* There are more than 600 employees, distributed over multiple teams.
* It has a wide variety of IT solutions spread across different industries.

**Hypothesis Developing:**

* Here first of all we have to bring customer back to service for that hypothesis required.
* we have to see which factor other than price is affected to customer churn your company

**Data Collection:**

* Structured Data: it contains all order done by companies.

**Data Pre-processing technique:**

**Problem Mapping (convert business problem into data science problem):**

* To retain churn customer, I applied Machine learning classification algorithm to predict churn and non-churn customer.
* using linear regression, we can also find which factor responsible for churning people.
* we can make cluster of customers in 3 to 4 group of loyal, less loyal, not loyal and we provide as per discount approach

**Solution Approach:**

1. we start with predicting which be going to churn to prevent company from more loss like proof of change (POC) then we add more complexity in it.
2. we predict which factor is more responsible for churning customer.
3. then we make group of customers as per behaviour, demographic so we can use strategies as per cluster

**EDA approach:**

**Identify Model:**

**Model Building:**

**Testing Hypothesis:**

**Model Evaluations:**