

# Loan Approval Prediction M

## Introduction

As a financial institution whose core business is to make the fast turn around time a competitive advantage, we need to use education and credit history to decide whether to approve a loan process. We will use data from <https://www.kaggle.com>

## Objective

A financial institution wants to automate the loan approval process by analyzing past loan application data, the model will predict whether a loan is approved or rejected.

## 2.1 Understanding the data

Importing the necessary libraries and models

```
[1]: import pandas as pd
import numpy as np
import seaborn as sns
import matplotlib.pyplot as plt
import statsmodels.api as sm
import warnings
warnings.filterwarnings('ignore')

#relevant ML libraries
from sklearn.preprocessing import LabelEncoder
from sklearn.model_selection import train_test_split
from sklearn.metrics import confusion_matrix, classification_report, accuracy_score
from sklearn.preprocessing import LabelEncoder
from sklearn.impute import SimpleImputer

#ML models
from sklearn.tree import DecisionTreeClassifier
```