**Consumer Creditworthiness (milestone 1)**

Hi, this is a project for Consumer Creditworthiness. Which means we’ve to create a model that will help us to make decision whether consumer is going to repay loan amount or consumer going to be default. Not everyone can get loan from the bank. There are several factor which decides whether it’d be worth enough to give them loan or not. We are going to study those factors which eventually help us to make model. We’ll try to find the importance of those factors (Features) with the final decision (Independent value i.e. Loan\_status).

**Business impact of each independent feature on the target**

1st Feature: Loan\_ID – This feature have all unique values indicating the application number of a person asking for a loan. We need it for addressing the consumer but this feature having any number doesn’t have to do with final decision. As it is just an application number. So it is less important feature for our model. So it is less important feature for our model.

2nd feature: Gender – Well, it is hard to generalize in today’s era via gender about their creditability. Nowadays there are so many schemes of government to promote woman entrepreneurship. So, loan requirement can be from any gender. If we talk about their creditworthiness, I think it won’t help us making the final decision. So it is less important feature for our model.

3rd Feature: Married – I think married person would take less risks compare to unmarried person. So the risk is going to be calculative. Which is positive signal. That can have more advantage if their spouse also is going to support financially to repay the loan. I can’t think of cons of the same so it is an important feature for our model.

4th feature: Dependents – I think this tells a lot about what we are looking for. The more the dependents the more it is not a good signal for a bank. Because they’d have more burden financially. Unless they’re having strong financial profile in terms of assets, it is risky to give them a loan. So, it is an important feature.

5th Feature: Education – This sound very important feature for a bank making decision. If a person is educated enough, there is good chances they’d be wiser financially. It is not true always either. Illiterate person would have CA or consultant managing these things for them will make them wiser applicant. So it depends on case to case. It is not a very important feature but still important.

6th feature: Self\_Employed – I think there are pro and cons for both being self employed or not. If someone is self employed, they’d have business and asset but their earning may be seasonal or riskier. On the other hand, if someone is dong service job then they’d have constant pay scale so pattern of EMI can be easier for them. At the same time, they’d be at risk of losing job. This feature is important.

7th feature: Applicantincome – This tell us the real picture of an applicant whether they’d be able to pay back loan or not. Bank statement would tell us more about their expenses and savings but again, if someone having low pay scale then it is less likely that they’d get a loan. Hence, it is an important feature.

8th feature: Coapplicantincome – This is very important feature and there is no con of having a earning partner. There can be always exceptions but that is rare for this case. If partner is earning and supportive enough for EMIs. Then chances will be more likely for an applicant for loan approval. Hence, it is an important feature.

9th feature: Loanamount – This is very important factor to compare this with all other features. Whether considering their profile, this loan amount this person can pay or not. So, it is an important feature.

10th feature: Loan\_amount\_term – This again will be compared with other features and loan amount specially. Higher the loan term, lesser the chances for an average profile. It is also an important feature.

11th Feature: Credit\_history – I believe score having 1 means good history and 0 means less than the threshold set. This is the most important feature as of now I think. Credit history from Cibil score is going to tell person history about how timely they paid EMIs in past and whether they were genuine or not. So, if someone having low Cibil, it is less likely that they’d get a loan. So, it is very important feature.

12th feature: Property\_area – I think this is very less information. Whether Urban or Rural or Semi-urban, value of property depends on many reasons. Well, probably majority of urban properties would be more valuables considering the same size. But again hard to generalize. So it is not very important feature.

**Benefit of model for analysing the data for organization**

* Well, if we’d be able to make a good accurate model then organization can be dependent on our model for making their decisions.
* Secondly, time and money will be saved.
* Thirdly, human error problems will be reduced.
* Fourthly, favorism can be stopped in their organization.
* Fifthly, under the table thing would be controlled.

**Missing feature which could be helpful for our model.**

* I think if we would have asset value and details as one feature then it’d be really helpful.
* Years of employment before retirement/ age of business could be helpful to understand.
* Type of loan would be helpful.

**Way to collect data for above suggested feature**

* By adding those columns in the applicant form.
* By bank details/statement/PAN information.