

# DEFAULT PREDICTION USING DEBIT/CREDIT CARD USAGE PATTERN

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## Motivation, Objectives and Scope of the Study

Predicting whether a borrower would default on the loan availed is of vital importance and banks and financial institutions are looking for techniques and applications to leverage their existing data assets. There are studies found in the literature which focus on predicting defaults in credit card re-payments based on credit card usages. There is little empirical evidence as per the current literature on using debit card spending patterns for predicting loan product defaults. In light of these, the scope of the proposed work will be to use Credit/Debit card usage pattern of the customers to predict their loan as well as credit repayment default behaviour.

## Research Question

Does the credit and debit card spending pattern related to the default on loan products as well as credit card repayment?

## Data

Area-wise data pertaining to the buying pattern (through credit and debit cards) for last 24 months will be collected. The purchase behaviour can be labelled into various categories, like luxury goods, groceries etc. Analysis of the data will be based on using the category-wise trend of frequency and amount spent every month for each area code. As a pilot study, we intent to analyse the data pertaining to Bangalore first and then going for pan India, if the results of the study are encouraging.

## Relevance and Anticipated Outcomes

If the trend of category-wise frequency and amount spent is proved to be a predictor of default behaviour, it will help in answering questions like, *if there is a dip in spending on luxury good in one area continuously for last 5 months, does it signal that in that area, the proportion of default will increase?* Further, the insights from this study will be useful for banks to develop a default index based on customer spending pattern.