

FinnOne™ Forecaster: Pre- Delinquency Management

The right lending decision

Effective Monitoring and proactive Delinquency Management Platform

Banking services are looking for the ways to improve the efficiency of their operations. One of the areas is the management of Pre-delinquency and Delinquency management. More Specifically the use of aggressive and well planned collection of debts and loss mitigations campaign.

After the recession the lending market is characterized by rapid consolidation and large economic scale for making an ideal market for automated scoring tools.

In the area of automated scoring and analytics Nucleus Software has come up with a solution “**FinnOne Forecaster PDM**” for our existing as well as new clients.

Delinquency Tracking or Default Tracking or Bad Loan Monitoring are different names for the same purpose i.e. tracking the banks/other lending institution’s assets under doubt. FinnOne Forecaster can be used as a powerful tool to predict the “**Probability of Default for a loan borrower**” and also the “**Probable Movement of the Default Bucket for a Loan Borrower**”. FinnOne Forecaster can use the historical demographical and repayment behavioral data to predict the two most important information required by a financial institution to devise an effective default tracking mechanism and thereby reducing the financial institution’s asserts risk of becoming delinquent.

There are primarily two areas where FinnOne Forecaster enables you to effectively devise a strategy with a set of action plans for handling each type of default customers:

- The first objective is to identify the set of customers in pre-delinquency stage, which are likely to get delinquent. For this the attributes chosen for building up the model include more of the behavior in nature and some repayment attributes as well. FinnOne Forecaster will be able to predict which customer set (which is still not moved to delinquency but are most likely to move to the delinquency bucket) in the coming months. With this information the financial institution can define a preventive action plan like early calling, additional camps for receipt of payments on holidays, proactive calling for construction period installment in case of mortgage loans and so on.
- The second objective is to identify the bucket movement among the customers, which are already delinquent. For this the behavior attribute is given almost equal importance than the repayment attributes. The risk class/delinquency bucket for the customer in the coming months is predicted so that an effective tracking and recovery strategy can be made for each customer segment. For example, in case

of an asset based loan wherein the customer is currently in the 30+ days default bucket and FinnOne Forecaster predicts that the customer will move in the 90+ days default bucket, the financial institution can make a strategy for repossession/legal action early to eradicate/minimize default loss.

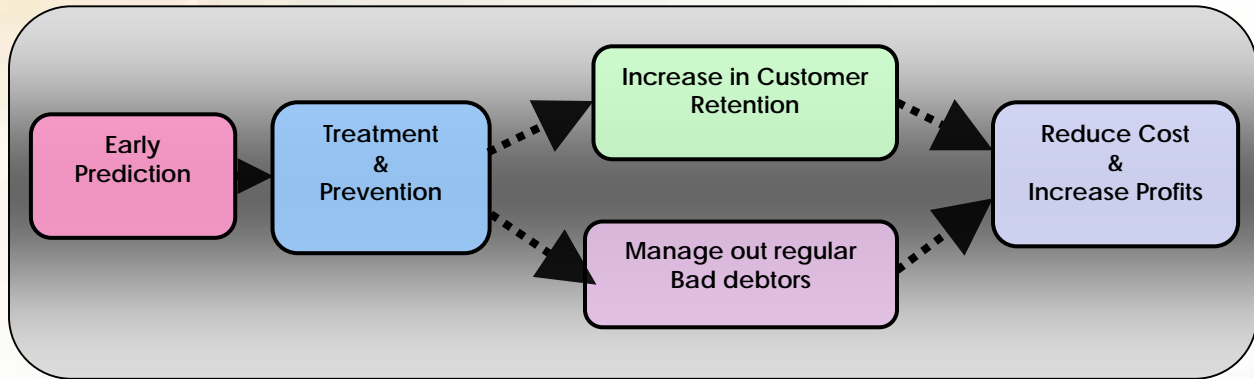


Fig 1.0 FinnOne™ Forecaster PDM Strategy

Key Features:

- Highly business driven and ready to use analytical and operational solution for banks and other financial institutes;
- Transactional and behavior analysis of potentially delinquent accounts to assess credit orientation and credit worthiness;
- Objective, intuitive and comprehensive set of practical business rules based on different transactional modes, patterns and types;
- End to end tracking and reporting of probable delinquent and delinquent customers with mapped strategies and curing actions in an efficient - and cost effective manner.
- Analytical outcome is not transformed into static spread sheets and paper reports but into automated operational actions based on proven business rules
- Ability to apply separate sets of business rules for different customer classes /groups based on various customer segmentation modes/models;
- Ability to create and customize business rule sets to suit the particular credit profile and risk aspects of specific groups of customers;
- Low implementation and operational cost along with fast implementation cycle.
- Web based with attractive, with user friendly GUI.

FinnOne™ Forecaster PDM enables a financial institution to manage the following key elements of the (Pre) Delinquency cycle.

Main Elements of the FinnOne Forecaster PDM are:

- ***Early Prediction:***

FinnOne™ PDM provides the analytical tool “Forecaster” to analyse the customer’s transactional and behavioural data, to build a predictive analytical model and to identify the probable delinquent or riskier profiled customers.

Methodologies of Early Prediction:

- 1) Machine Learning or Decision Tree based Models
- 2) Statistical Score cards based on Logistic and multiple Linear Regression
- 3) Based on the Expert/ Judgemental Score cards

- ***Customer Classification:***

FinnOne™ PDM provides the rules engine to build effective customer classification and segmentation rules with business inputs along with early predictions.

- ***Strategy and Management:***

FinnOne™ PDM provides the functionality to business users to define the strategy and actions for curing the probable delinquent customer in advance to improve the quality of the loan portfolio. Hence an Over30 contract if projected as potential Over60 can be directly send to a higher level of tele-calling for recovery, instead of waiting it to turn Over60 after a month.

- ***Tracking:***

FinnOne™ PDM provides the platform for complete tracking and executing of the pre-defined strategy, customer monitoring and contact recording. With it’s close integration with the Collections module. The Collections department can always keep a watch on risky customer even if they are regular.

- ***Reports***

FinnOne™ PDM provides platforms for developing the customized reports for validating the models and strategy. Different reports on the portfolio and classification and curing performance can be generated using the historical data stored in FinnOne Forecaster PDM.

- Population Stability Reports
- Characteristics analysis reports
- Delinquency Rates based on the scores
- Performance of Early Predictions Models reports.

FinnOne™ Forecaster PDM Workflow:

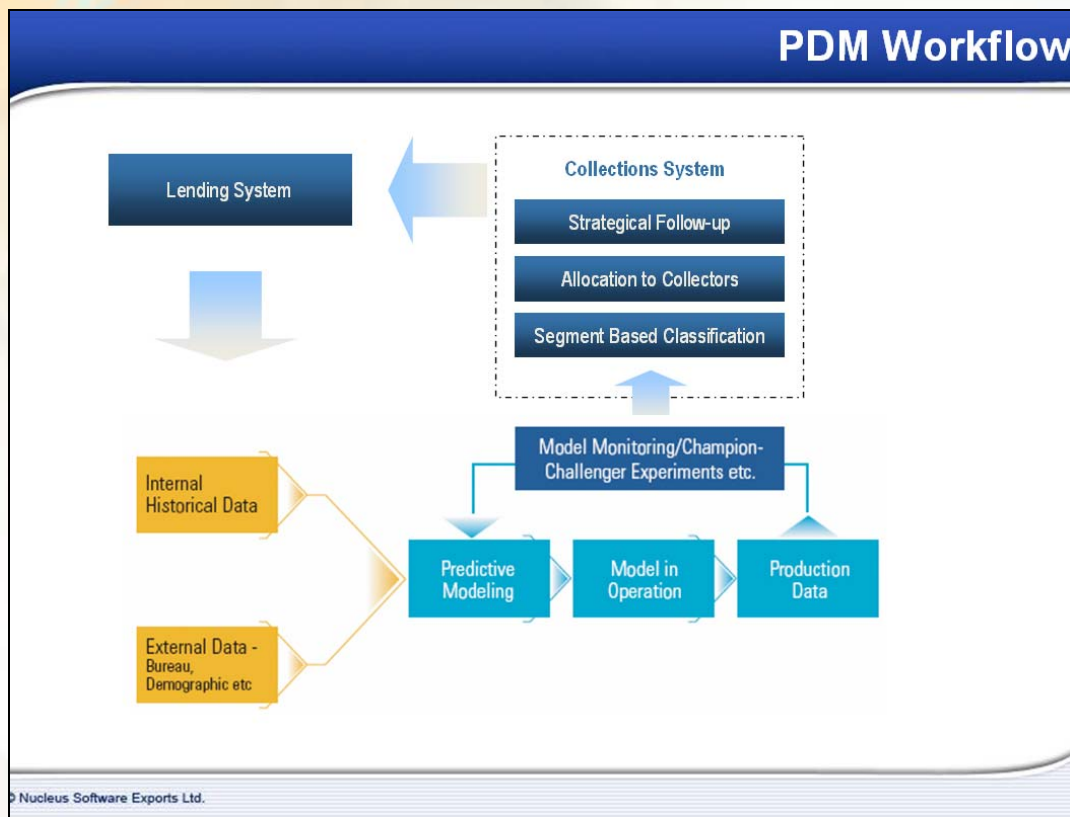


Fig 2.0 FinnOne Forecaster PDM Workflow

- The FinnOne Forecaster PDM solution have pre defined process to extract the historical data from the Lending System and/or from any external data source if available on a pre specified interval (for example on each payment cycle or begin of the month).
- The FinnOne Forecaster PDM solution then runs the predictive models to generate the risk classes of customers as well as provide behavioral scoring to the contract.
- These score are automatically transferred to the Collections Management system for curing and recovery management. The contracts are then classification based on their risk classes and allocated to collectors for collection activities.
- The FinnOne Forecaster PDM solution also provides functionality to suggest the Next Action to be performed by the Collector, based on the current state/risk of the contract. Hence giving an opportunity to guide the tele-callers based on the experience gathered by the Collections department over a period of time.
- The FinnOne Forecaster PDM solution provides the Business user the functionality to optimize the models as well as the strategy on regular interval with minimum interference of IT departments.

FinnOne™ Forecaster Analysis:

FinnOne Forecaster PDM solution has the capability to accept a lot of user defined internal as well as external data feed as an input. Based on the input parameters, the system helps the business users to identify the key parameters and their importance.

The system also identifies the patterns and hidden trends which can be used for strategy definition and in turn targets the customer with right strategy at right time with minimal cost.

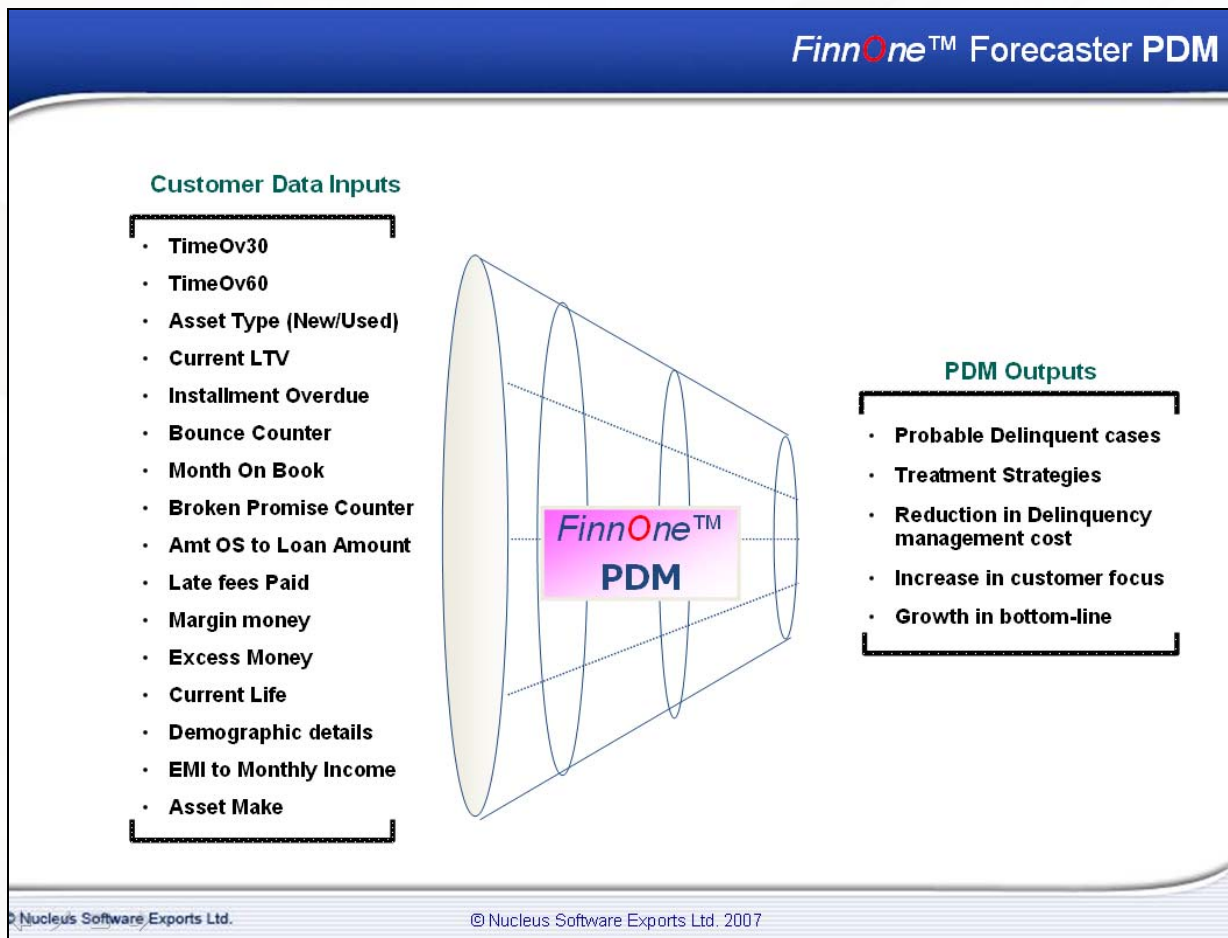


Fig 3.0 FinnOne Forecaster PDM

As stated in the above figure, the system makes use of the available data inputs such as TimesOv30, TimesOv60, Installment overdue etc. converted into risk ranking of the customers which classify them into different pre-defined risk queues for applying suggested strategy and curing actions. This reduces the Collections effort and cost and increases the quality of the portfolio.