Financial Collection Innovation – Paradigm shift through Data and Machine learning driven automation

Financial collections, both debt and Account receivables has been facing serious challenges primarily due to the non-data driven and highly human dependent process. Ever increasing bad debts and delayed outstanding are crippling the cash flow and bottom line of majority of enterprises.

Non-analytics driven and Non pre-emptive Debt collection process is the major cause of ever increasing bad debts in many companies. Also, non-targeted and non-focused debt collection is resulting in very high cost in debt collection

The non-personalized and non automated debt collection is also resulting in very high level of customer dissatisfaction, delayed debt collection process and hence piling up of bad debts

In order to address these issues, taking a data driven digital approach to debt collection and account receivables is becoming more mainstream across the industries. Enterprises and customers benefit from greater use of data and digital technologies, with personalized and focused customer self-service helping to improve substantial increase in efficiency and convenience.

 Researches show that, approximately 52% of all consumer financial transactions now occur online, making digital the primary channel for modern banking. Just two years ago, that figure stood at 33%, so the transition is happening fast. Debt collection methods must also adapt to these new consumer expectations.

A data driven digital-first debt collection strategy, properly implemented, can meet the priority requirements of the consumer and the regulator. Devising and executing a Data driven digital first data collection strategy requires enormous amount of efforts and resources and often enterprises are grappled with the necessary skill set for this .

Automation, and particularly simplistic artificial intelligence and machine learning technologies (ML), have been offered as quick fit solutions for this.

This is typical over simplified approach boils down to the reductionist doctrine of "replace the call center staff with robots". Replacing the call center agent with Chat bot can reduce the human resources costs but will not solve any problem rather can bring in new set of problems. The Chabot may be an effective, nonintrusive reminder that the consumer now prefers, but implementing Chat bots without adequate data intelligence will only create new set of problems.

ML driven approach offers the basis for building a whole new approach to collections, a uniquely different approaches used in the past. The data science and data engineering methodologies must be applied properly to harness the power of the data and digital technologies

The Strategic Drivers

Debt and Account receivable collection in general are being governed by two broad, strategic drivers:

- **Ever increasing Non-performingassets:** While economy in general is growing fast, it's also bringing increasing levels of consumer debt and higher rates of default. These factors in turn will put an even greater focus on the commercial performance of organizations.
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- **Compliance** – The existing compliance and regulatory system that mandates customer-centric conduct, and under which all processes are judged in terms of whether they lead to fair and appropriate customer outcomes. These outcomes may be focused on getting customers out of arrears, or on the receipt of appropriate levels of forbearance. In considering how best to reach these outcomes, there is inevitable requirement of focused, targeted and personalized approach in collection process .

Current situation

At present

1. Debt collection follow up actions are taken once the customer become a defaulter
2. Generic follow up actions are taken on all the defaulters

3. Very little pre-emptive follow up actions before the default happens
4. Default collection intelligence is non automated , non algorithmic driven

The above process is resulting in huge cost in debt collection and ever increasing bad debts

These issues are are compelling organizations to make even more efficient use of collection process. Economic conditions will require stronger performance from collection operations to maintain even the current levels of return.

Increasing the number of human resources to address this is an exercise of diminishing returns: the cost increases at a faster rate than the collections performance per head. Also, more headcount means more training and longer call times to ensure regulatory compliance.

Customer relationship management systems / call-center-driven debt collection strategies is not generating enough outcomes. Enterprises must boost debt collection performance, while reducing cost and delivering a more carefully monitored debt collection process.

A new solution to this challenge is required, and that solution can leverage Machine-learning techniques to meet the strategic drivers behind this change.

The ML Driven solution

Phase 1 : Personalized collection intelligence

In order to address the problems stated above, it is inevitable that, the debt collection process shall be based on data driven personalization intelligence. To achieve this , following process need to be deployed:-

1. Debt collection process should be based on Advanced Analytics
2. Debt collection process should use variety of the data available

3. Debt collection process should be based on Machine learning driven to make accurate prediction on future payments
4. Debt collection intelligence should be real time and Automated

In order to make Debt collection decisions be based on data driven intelligence, an ML driven platform, which can provide automated real time pre-emptive collection intelligence is a must.

Phase 1 : ML driven collection intelligence platform
ML Collection Intelligence platform broadly consists of the following :-

Big Data Engine

The data-engineeringlayer shall be capable of handling large volume and variety of data and process the various Machine-learning functions on a real time basis

API for Alternate Data
The platform should be capable of real time extraction of various alternate data from various alternate data sources like Mobile, Social media upon obtaining the adequate consent in this regard and within the compliance and regulatory requirements . Such extracted relevant data shall be used in building the analytical data mart as an optional data**.**

Feature creation engine

This is the core of the product platform , which shall comprises of built in algorithms to create feature created data set using the analytical data mart. The feature creation engine automatically

created hundreds of derived variables from the analytical data set for the making the model and scoring data set.

Machine Learning Algorithms

The product architecture should be built to create, Model, Training and Scoring algorithms on a real time basis . The process and systems should be built to facilitate automated supervisory learning of the algorithms

Automatic Integration with Enterprise systems

The product should have the built in capability to integrate with carious enterprise systems for the execution of the personalized collection process

Execution of Personalized debt collection & Collection Intelligence dashboards

The output of the ML algorithms shall be automatically exported to collection management systems like CRM software or any other applications the client may designate and also provide highly intuitive dashboards depicting the collection intelligence

Stat Analytics Product Platform CreditNirvana:DebtCollectAi addresses all the above desired features for executing highly efficient, automated, ML driven financial collection.

Making use of the capabilities of top-notch Technological and Data science products of Oracle, CreditNirvana platform helps organizations to increase the collection amounts and reduce collection costs within a short period of time.

Conclusion

The ever-increasing bad debts and regulatory environments present increasing business challenges for the account receivable and collections for majority of enterprises and industry, and leveraging the data driven digital first application is a must for Enterprises.

Digital without Machine learning intelligence will not serve the purpose as it will only serve in replacing humans with robots.

The opportunity to leverage ML is clear, and Enterprises should be investigating in deploying machine learning platforms approach as solutions to collection challenges.

Stat Analytics We are committed for making the best use of Data Science and Technology for facilitating data driven actions on your Financial Data
We are a group of Data scientists each with more than 20 years of experience in advanced analytics, Data science and Data Engineering in organizations like Accenture, Capgemini, HP, Morgan Stanley etc.
So, we founded Stat Analytics and created the CreditNirvana; a Prescriptive Analytics Platform making use of the advanced development in Machine Learning and Big Data engineering for providing Data driven actions on your Financial data.

Stat Analytics product platform CreditNirvana:DebtCollectAi has been developed in the pursuit of making the best use of Data Science and Technology for facilitating data driven actions on your Financial Data.