iJRASET
International Journal For Research in Applied Science and Engineering Technology



INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Volume: 8 **Issue:** VI **Month of publication:** June 2020

DOI: http://doi.org/10.22214/ijraset.2020.6085

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International Journal for Research in Applied Science & Engineering Technology (IJRASET)
ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor: 7.429
Volume 8 Issue VI June 2020- Available at www.ijraset.com

Digital Lending: Collection Management System on Lend. In Platform

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Abstract: Collection Management System is an intelligent collection system, that provides building blocks to configure business strategies for collections in a digital platform without hassle. It empowers businesses to configure business use cases in real-time and modify the touch points as per the requirements
The system manages users from different types of roles involved in the loan recovery process. It allows rule-based assignment logic to assign cases to collection roles. Furthermore, allocation of cases to individual users within a role is taken care by allocation logic configurable for each role. the system can speak to any type of data source (internal or external systems, for example, LMS, LOS, EWS, Credit bureau, etc) to collect transactional, behavioral and/or personal information.
Keywords: lending, loans, banks, security, turnaround-time, Collection of Loans

I. INTRODUCTION

Traditional banks, the average "time to decision" for small business and corporate lending is between three and five weeks.1 Average "time to cash" is nearly three months. In our view, these times will soon seem as antiquated and unacceptable as the three weeks it once took to cross the Atlantic. Leading banks have embraced the digital-lending revolution, bringing "time to yes" down to five minutes, and time to cash to less than 24 hours. The communication to any system can be a real-time API integration or an EOD batch process. It takes the relevant data for collection decisions from various Db sources and updates the same with new responses received during the collection process. Collection Management System also empowers the institutions to identify the user behaviour and assign a risk associated with it by analysing and maintaining the response pattern of the customer to various touch points.

II. SIGNIFICANCE OF THE STUDY

The purpose of the study is to have a loan collection management system which could be easily integrated into the process of a digitized loan journey. This allows seamless collection of loans, and multiple aspects that are involved when a loan is to be received.

III. THE RISE OF DIGITAL LENDING

Around the world, the lending business has seen quite varying activities and products. Fintechs are on the rise and disrupting the formal lending business hugely, taking advantage of consumer's behavioral changes and shaping their experiences. Furthermore, in India, the regulations and compliances are easing up quite a lot and recently cryptocurrency trading has been allowed by the Supreme Court of India. Research has shown that almost 80% of people living in NCR, Mumbai, and other metropolitan cities, have bought a loan through a digital platform and the remaining 20% said that they would have opted for a digital loan in the upcoming 3 months.
Also, as much as 80% of the rural population avails some sort of service from banks themselves, and have a bank account. This has opened up a tremendous opportunity for even more growth of digital platforms of lending.[2]

IV. THE SYSTEMS.

1) *Database Management:* Collects data from various systems like, LMS, LOS, Collateral Management, LAS, third party agencies, bureau, etc. Stores the actions and the response recorded by users at our own database and shares the same with other systems like LMS/CBS.
2) *Identity Management:* Onboard different roles for loan recovery process. Create groups and sub-groups between roles to manage teams, logic-based case division and manage create hierarchy. Add as many users to groups and create their credentials
3) *Assignment Logic:* Define rules to assign the cases to different roles in the loan recovery process. Add, remove, edit the rules anytime without any tech effort. As an output the cases are assigned to the roles and the groups. The output of one rule can also include multiple roles and groups.

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4) *Allocation Logic:* The allocation logic will run within a group and each customizable for each group. There are various types of logic available in the system. Right now, round-robin and allocation are running. Other types will be added soon.
5) *User Portals:* Configure portals for each role and have user-based access. View cases allocated to you and to the users in your sub-groups. Get complete portfolio details of the cases in a dashboard view.

A. *Collection Database Framework*

The system is capable to receive data from any source in a defined format. Collections system will get data from multiple sources like Loan Origination System (LOS), Loan Management System (LMS), Early Warning Systems (EWS), Collateral management, Notifications and Collections feed. The data will get updated once a day (EOD/BOD) as per the requirement. All the temp data from collections side will be stored in collections db. and will get updated in other systems by a similar job process (batch). For collections assignment rules, there are some mandatory fields defined which needs to come from LMS/CBS in a pre-defined manner.

B. *Identity Management Framework*

The entire collections' team which process the loan recovery is onboarded in our identity management tool to get access to role-based access to the online portals and take actions. The organizational structure of the team is onboarded with different roles and hierarchy within them.

C. *The Workflow Creation*

The workflow creation is based on the CMMN (Case Model Management and Notations) system. It takes care of all the allocation and the assignment logics that needs to be done by the system. It is the heart of the Collection Management System. The assignment logic for decisioning, allocation logic to allocate users and the portals configuration will be defined here. From the scheduled job, the data (cases) will flow through assignment logic which will assign it to different roles and groups.
The allocation logic will be defined for each group and it will further allocate the cases to single users in that group as per the logic defined for it. Each group will have its own allocation logic. Once the cases are allocated to users, it will be visible in the users portals or mobile apps. The portal view, fields, actions, buckets, etc will be configured on CMN. As the user takes any action, the case will move out from decisioning will happen again on the same case for further assignment. All of the assignment logics are based off of 3 scheduling methods, that are, first-come-first-serve (FCFS), Round-Robin, and Custom Scheduling.

D. *User Portals*

User portals are finally the dashboard, that allows users to see and manage their activities on the system and would be of 2 types, desktop web portal and a mobile app (still in development).
These portals are highly dynamic and differs from each case, as new cases come and as per the requirement, through Kuliza's own rendering engine, these portals take the data and through some configureuration in the CMMN and display it in a proper ANT Design language on the portals, though that component is already available and is out of scope for this project. This allows each case to be widely different from each other

V. RESULTS AND ANALYSIS

The outcome of this project was a system which allows loan recovery. It provides various facilities like loan collection by each case, each case's risk management, collateral recovery and many other stuffs. Its main objective therefore was:

A. Realtime configurable system
B. Customized dashboard for each user to monitor its case.
C. Customized dashboard for banker employees to track, monitor and take actions for any user's case.
D. Configurable workflow and rule engine.
E. Improved Efficiency and accountability.

The outcomes and results of the objectives set:

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1) A successful build of a realtime configurable system, with fully configurable assignments and allocation logic, applying to different banking roles for the verifications and collections of loans.
2) A dashboard through use of Portals, which allowed customer to have a very customized view of his/her application, allowing them to be better aware of things like the next due date among other things, and an integrated notification system.
3) A dashboard through use of Portals, which allowed bankers to have all cases list, that can be claimed and worked by them. They get the freedom of removing, adding, taking multiple actions, record responses, and have a daily worklist of the multiple cases that are being handled by them
4) Thus, by doing the above and more, we have reached our final goal to have efficiency and accountability in loan recovering process for banks and NBFCs.

VI. COMPARATIVE ANALYSIS

There are two main approaches that are took by the financial companies for their loan recovering process. One is the offline method, wherein every task is assigned by the manager to all different roles and cases are given to them, who then goes to the borrower or contact them through mail of calls and tells them about their current status of their loan application and their upcoming due dates. The recovery usually takes place through cheques, or cash capital, and sometimes through any internet banking services. This has major flaws like too much of turnaround time, wastage of resources, scenarios like borrower not receiving its next due date, or if borrower is not to be found, etc. This leads to lot of trouble for the bank and its working.

The other approach is the semi-digital one, where-in all the cases are assigned manually by the manager and they are taken care of through auto generated emails and use of services like e-mandate. Even though the major processes still happen offline, they are kept in the servers/cloud/databases for recording keeping. These records basically are entered manually into the systems just for record keeping purposes.

Then we have our system, which takes care of whole collection process end-to-end with everything digitized and at certain instances, automated so there's lot of accountability over what is to be done by whom and users being notified and aware of their application status, their next due dates, and completion of the loan process. Similarly it allows bankers too the resources and access to function without hiccups and thus decreasing the turnaround time massively.

VII. CONCLUSION

While understanding the problems faced in the lending industry, it was observed that the current loan recovery systems can be improved by a great margin with the use of technology and digitization. Thus, this project was initiated. Lend.In Collections is an intelligent collection system, that provides building blocks to configure business strategies for collections in a digital platform without hassle. It empowers businesses to configure business use cases in real-time and modify the touch points as per the requirements.

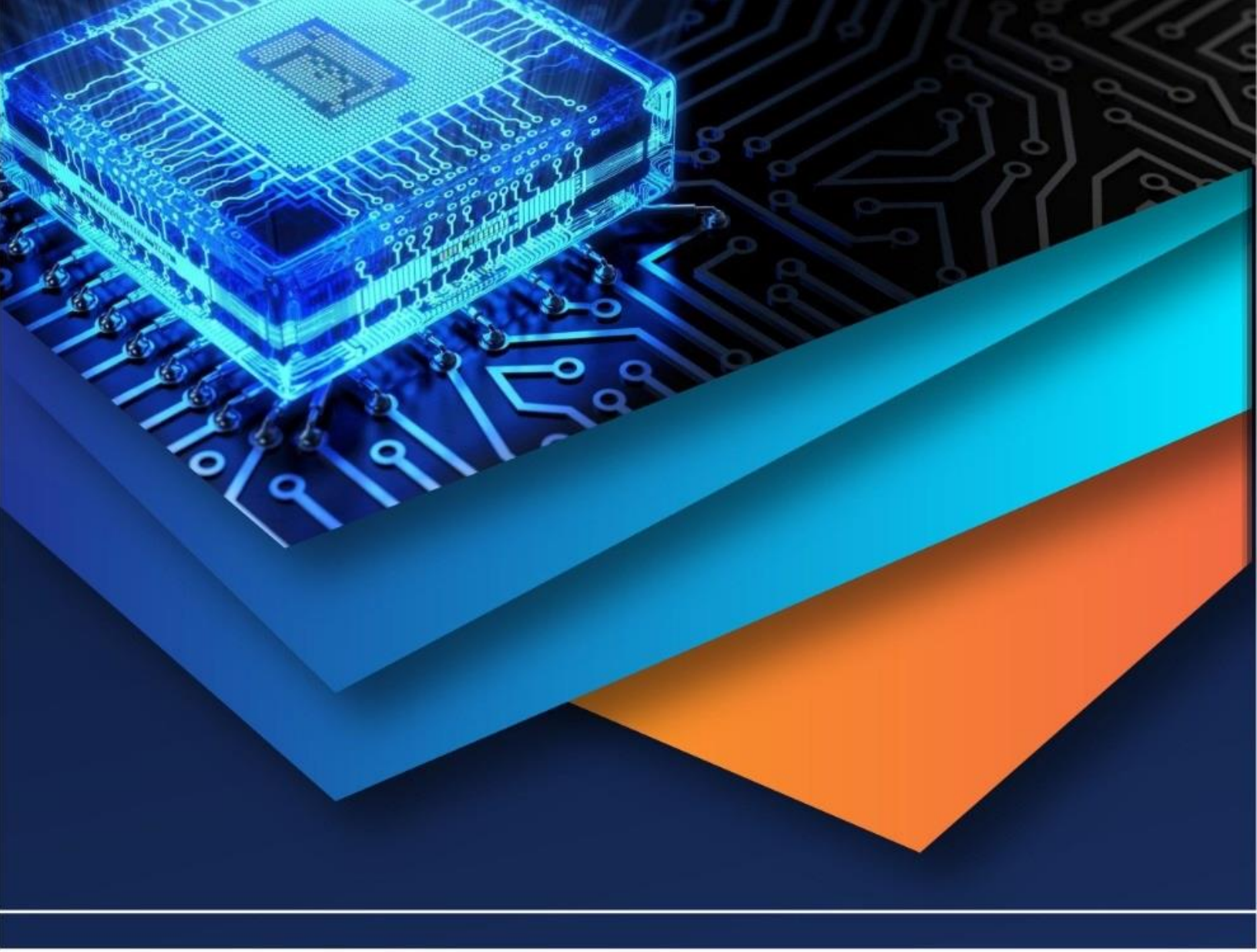
The system manages the different types of roles involved in the collections module, assign cases to them and record responses in the system for further assignment.

Lend.In Collection System also empowers the institutions to identify the user behavior and assign a risk associated with it by analyzing and maintaining the response pattern of the customer to various touch points. The system now provides multiple features and facilitate various kinds of activities that can easily be use by the people in lending industry to their advantage.

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