Role and performance of Real Time, Web based Loan Generating Systems (LGS) towards Paper-less Banking

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Abstract-**Documentation in banking throughout the Pakistan is the cause of erroneous and tedious working. Paper-based systems are difficult to handle and transfer of information within them is also time consuming. Loan origination should always be fast and efficient as customer's needs are usually to be filled urgently, while this cannot be possible with paper based systems. In order to have efficient loan generation, banks in Pakistan are devising their own Real time-Web based Loan Generation Systems (LGS) for commercial and corporate clients specifically. It has been a major breakthrough towards paper less banking as the whole information about obligor can be enriched in LGS environment and even the approvals from all levels up to CEO of the bank can be taken within the same day of initiation. Currently it is used for making proposals for obligors having credit lines greater than 75 (M). LGS has speed up the process with no chances of error. In this paper, roles and features of LGS have been analyzed along with its loop holes. Development of it towards making of proposals for SME sector is also been discussed.**

Index Terms—**loan generation system; paper-less banking; real time systems; commercial banking; cloud servers.**

I. INTRODUCTION

Paper less banking is the future of banking, not only this reduces costs but also time and space. Core banking systems with paper less banking had already been worked out and placed throughout the world; however there is still need of paper less loan generation systems as it's the credit administration department that suffers the most in data retention when the audit arrives. Banks in Pakistan under the regulation of State Bank of Pakistan (SBP) are categorized as one of the safest banks throughout the world due to strict procedures and risk mitigating culture. Procedures for loan origination and approval were very cumbersome and will be described in detail in next section. Conversion process towards paperless LGS was very difficult, as to link and comply the system with Credit procedures and policy manual (CPPM) of all the banks and instruction set of State Bank of Pakistan (SBP). Steps taken for conversion will be described in one of the next sections. After that we will come towards environment and features of LGS. After that we will

discuss loop holes of the system and I will present my suggestions for improving the system along with it. We will future developments of LGS as well. We will now discuss paper based Loan generating systems.

II. PAPER BASED LOAN GENERATING SYSTEM

Paper based loan Generation system is the practice that is followed by all banks of Pakistan. Pakistani banks have a very healthy portfolio ranging from corporate giants to SME sector. Credit facilities to obligors lying in commercial and corporate sectors having exposure more than 75 M are the worthy assets of the bank. These obligors suffer from late disbursements of their facilities as these will suffer their working capital requirements to meet. Paper based systems involve some formats in MS word and Excel to fill in by RM / BM appropriately and then escalate it to further approval levels from Group Heads to C.E.O of the bank where each level requires copy of the proposal and references to be retained, which is really a headache. Paperless LGS was the initiative taken by I.T group which also requires some initial steps to be taken; these are explained in next section.

III. INITIAL STEPS TOWARD PAPERLESS LGS

Steps taken initially involves procuring of infrastructure and gathering of information of many sorts, which includes the enrichment of data, server up gradation for the enhanced database and also the linkage of data base with the SBP prudential / regulations [1] and bank's own policies and procedures. These were actually the leaps that have been taken by the banks including Allied bank Ltd. e.t.c. in the following ways,

A. Enrichment of Data

It usually takes months to transfer data from documents to data base of each obligor and for that IT and field staffs including credit and relationship managers collaborate initially, however data for the new clients and also some of the existing clients have been enriched solely by field staff using easy to handle environment.

B. Server up Gradation

Servers throughout the banks which implemented web based LGS have been upgraded and placed at

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central locations of each region for high speed and large data handling capacity.

C. LGS Compliance with SBP Policies and Bank'S own Cppm

All banks which implemented LGS have taken SBP policies[1] and Bank's own CPPM into consideration, thus equipped LGS with links which check the proposal and data entered on each stage for compliance with SBP and Bank' CPPM. It also includes a very special feature the "Integrity check" which is actually used for checking the integrity of obligors by linking databases of all banks and SBP to the system so that any defaulter from any bank who is either proprietor or partner of the obligor can

be captured. Further information about this is given in next sections.

IV. ENVIRONMENT AND FEATURES OF LGS

LGS environment should be very user friendly as it is normally used by non-technical people. Most common prototype has the users to login with their domain username and password allocated by banks. Employees with different functions have given different jurisdictions in LGS where some can only review while others can input information as well. Welcome screen after login normally looks like following in Fig. 1,

Figure 1. Welcome screen for LGS

New CA can be made after clicking on new CA, where usually the first page of BBFS appears which can be filled with information of obligor. When the user will put all the information of obligor then the integrity check will be done, integrity check is done for write-off/relief cases. It is mandatory to check CA credentials against Database.

On carrying out the check, a number of complete and partial matches will be displayed. If no record matches completely with obligor details, user can check the acknowledgement checkbox as shown below and click 'Next' to proceed to pledge theft cases database as shown in Fig. 2.

Figure 2. Integrity check

After BBFS and Integrity check the industry's premises and details have normally been given like the

information about plant, unit and section. It normally is inputted by user as following,

Figure 3. Industry Details

Most important part of the proposal is the financial analysis of industry where the audited financials normally can be uploaded by the user in pdf format, where the data will be automatically populated in financial spreads where each financial data can be justified and commented by the user.

Figure 4. Financial Analysis

It can be seen that how the financial analysis can be done for each KPI (Key performance Indicator) in the above screen by commenting about them.

V. Loop Holes and Suggestions for LGS

In this section I will present some loop holes that so far I have seen in LGS used throughout the banks of Pakistan and will present suggestions to improve them as follows,

A. Problem with Integrity Check

Problem with integrity check is that it just checks the integrity of Proprietors, partners and directors of those firms which have either been defaulted or have a write off loan with amount greater than 0.5 (M) and does not perform any check on the mortgagors / property owners of such firms which can be a serious risk emanating ploy as those mortgagors who are now borrowers of banks could be part of fraudulent action and banks wouldn't know their actual net worth in this case. Data acquisition and management of such type is a tedious work so banks could rather ask client to submit details of all properties he possessed along with Misal Miadai (Ownership Deed) of each.

B. Referral of Attachments to Different Sections

Documents attached on a section of LOS should also be available on other sections of LOS when referred to that attachment as it is already saved on the server so that users shouldn't need their hard disks. That's essential and easiest thing to do for better portability. Moving some document from one location of server to another is much faster than getting that from hard disk.

C. Cloud Servers for Storage

Cloud servers should be used for data storage as it is now the future of data storage [2]-[6]. Third party servers can be used for that purpose. Cloud servers are speedy and efficient storage places for data. Biggest advantage is that using unique password and IP address the whole data can be accessible from any part of planet outside the bank's domain as well.

VI. Future Developments of Web-based LGS

Web-based LGS is now only in use by banks of Pakistan for commercial and corporate obligors however some banks are now developing LGS for the SME (Small and Medium Enterprises) sectors as well. Initial steps taken by the banks are to first comply the SBP prudential and regulations [7], some banks have already gone for this uphill task but the main problem with SME sector normally in Pakistan is that they are either not documented or partially documented. SME obligors should be first streamlined with respect to documentation and information completion before plunging them on web based LGS.

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