Business Intelligence for Banking
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Business Intelligence or BI as it is popularly known refers to the various technologies, methodologies, applications and tools that organizations use to collect, analyze and interpret data. BI outputs give organizations a better understanding of their present circumstances, so that they may take the right course of action in future.

Banks and financial Institutions have over the years compiled huge amounts of business and customer data into large electronic repositories. Is the maintenance of this data a liability, an asset or just another regular task for them?

Manual systems

Manual systems were prevalent before the use of computers, when banking operations were small and limited mainly to branches. These systems involved the manual recording of branch transactions and the generation of rudimentary reports from manual ledgers, which were consolidated with those of other branches into a final report for the bank as a whole. Here, BI was limited to simple reporting of banking transactions only.

Implementation of computer-based systems

As banks grew in size, channels and geographical footprint, their transactions jumped multifold. Manual reporting, which was time consuming, error prone and filed with redundancy, proved unequal to the task and made way for automated systems. Banks began to increasingly depend on technology to manage their huge volumes of data.

This data will always be a liability as long as it is locked inside the repositories. To turn data into an asset, its inherent value needs to be extracted by unlocking, analyzing and recognizing its patterns. This is where BI plays a crucial role.

Business Intelligence is an important component of banks’ implementation of IT based strategies. It can help them improve products, enhance customer relationships, make better forecasts based on past trends, handle competition, manage risk, increase operational efficiency etc. on the way to a healthier bottom line.

Evolution of BI in banks

With the introduction of computers in banks, branch-wise computerized reports – mostly MS Excel spreadsheets – were consolidated at a bank level. However, they were not very comprehensive and being limited to banking transactions, did not support decision making.

MIS-based systems:

The search for higher decision support capability led to the introduction of MIS-based systems, which are specialized techniques and tools used in a BI framework. These systems crunch simple banking data into comprehensive insights that can guide key business decisions. Today, the scope of BI extends beyond mere reporting of banking transactions to other areas impacting the banking business as a whole.

By using BI techniques like data mining banks can get a 360-degree view of data and drill it down extensively to take informed decisions.
Thought Paper

Uses of BI for banks

Historical trend analysis:
Banks need to analyze past data to chalk out future course of action. BI analysis mainly requires information about branches, employees, deposits, loans, sales and expenses, profit and loss etc., in absolute or percentage terms, which might also be organized by product, sector, customer profile, region, timing, or the bank’s distribution structure.

BI analyzes this data into metrics like product profitability or business per employee, improves understanding of customer needs and gaps, identifies thrust areas and new market opportunities, and provides insights on which products need to be re-priced, which ones removed, and which others must be introduced. It also projects future business targets from past performance. By regularly conducting such analyses, banks can monitor variance between targets and achievements, and determine remedial steps.

Customer relationship management
Although Customer Relationship Management (CRM) is a key differentiator in the services industry, in conventional banking: even a few years ago CRM was confined to the personal relationships that banks shared with their customers. This has undergone a major change with every bank now vying for the same prospects; also their relationship with customers has expanded beyond banking. Today, CRM provides better understanding of customers’ behavior, preferences and needs and thereby helps banks make improvements to their products, services, and sales/marketing/customer care strategies.

BI can help transform a product-oriented business model to one that is customer-centric. Data mining is a BI technique, which involves delving deep into available business data to find hidden patterns, trends, and correlations. Mining of customers’ personal data can give indications about future demand. It can help banks identify and retain profitable customers as well as filter out those who are not. (The cost of acquiring a new customer is more than that of retaining an old one, but is lower than the cost of maintaining an unprofitable customer). BI can also profile customers based on their needs or other attributes; banks can use this information to target specific products, services and privileges at specific customers. What’s more, this intelligence can be shared with other lines of business, such as credit cards, insurance etc. to promote cross sales and generate additional revenue.

Managing risks
Financial and non-financial risks and uncertainties are an integral part of banking. Risks faced by banks can be mainly classified as credit, market or operational risk.

Credit risk refers to the likelihood of the borrower defaulting on obligations. BI can help banks mitigate this risk by creating a database of risky borrowers and business sectors. Analysis of a borrower’s past dealings and transactions can help to statistically predict future behavior. This data can in turn, help banks refine their lending and risk rating mechanisms.

Market risk is the risk arising out of fluctuations in market variables in markets that banks are overexposed to. Analysis of historical data can strengthen a bank’s portfolio by highlighting opportunities for diversification or lowering of exposure to a particular borrower, industry or sector. Asset liability management can also be handled in an effective way through the study of past data.

Operational risk is the risk that arises out of human error, fraud or natural disaster. While natural disasters cannot be predicted, risks arising out of human error or fraud can definitely be checked through proper audit and stronger internal controls. BI can help banks by keeping an exhaustive record of all financial and non-financial transactions of employees and other stakeholders, so that even the slightest deviation from set processes can come to light. A proper reporting mechanism would also ensure transparency in banking transactions and mitigate operational risk.
Regulatory compliance

Banks are required to submit several reports to regulatory authorities, such as the Reserve Bank of India (RBI), Securities and Exchange Board of India (SEBI), Credit Information Bureau of India Limited (CIBIL) etc. as part of compliance with Anti Money Laundering, BASEL and Sarbanes-Oxley norms, to name a few. RBI, for example, requires on a regular basis, details of foreign exchange transactions by designated branches, a list of all complaints filed against the bank with the banking ombudsman as well as details of exposure to various sectors. CIBIL asks for the credit information of all individuals and enterprises using banking facilities, to identify defaulters and those who need to be blacklisted from conducting any banking activities in the country. Also, auditors expect banks to furnish on time all details required during compulsory audit.

Banks must maintain data on all events and transactions in order to prepare these data driven reports accurately, easily, and on time, failing which they may face stringent action by the regulators. BI can help banks collect all relevant data as well as organize and present it in the required formats.

The future of business intelligence: operational BI

Traditional BI deals mainly with the analysis of historical data. It typically has a long decision making cycle. On the other hand, the newly developed science of Operational BI works on recent transaction data to enable fast, even “near real-time” business decisions. For this reason, operational BI is more complex to manage than traditional BI.

Operational BI has many uses. For instance, it can draw the attention of bank employees to the likely needs of customers whom they are serving at that moment, or to alert them to a hot listed/fraudulent instrument presented at the counter.

Key challenges:

Although the implementation of BI brings several benefits, it also brings certain challenges:

a) Poor quality data: Banks keep their data in varied databases, creating problems of data redundancy, inconsistency and inaccuracy. Also, this data is usually not available in a format that is ready for use by a BI system.

Hence, it must be extracted from data sources and cleansed before it can be fed into the BI system, which could take quite long if the data is voluminous.

b) Lack of trained staff: Simply installing a BI tool is not enough; staff should be trained to handle it properly as even one mistake may cause a “make or break” situation for the bank.

c) High investment: BI is a relatively new concept and not many banks are interested in implementing it on a large scale, given the high initial investment. Banks need to recognize that the long-term business benefits of BI outweigh its costs.

Although banks stand to gain substantially from BI implementation, they must not think of it as a silver bullet. BI systems and tools process data very well, and can contribute to decisions to some extent; that being said, BI is a decision support (and not decision making) system. The onus of taking a final decision on the basis of analyzed data rests solely on the decision makers within the bank.

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Finacle from Infosys partners with banks to transform process, product and customer experience, arming them with ‘accelerated innovation’ that is key to building tomorrow’s bank.

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