Big Data Analytics to Bank on your Biggest Asset—Information

Big Data Director:
Jayaprakash Nair
jayaprakash.nair@aspiresys.com

Author:
Shreyasee Ghosh
Research Analyst

Aspire Systems Consulting PTE Ltd.
60, Paya Lebar Road, No.08-43,
Paya Lebar Square, Singapore – 409 051.
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Big Data Analytics to Bank on your Biggest Asset-Information

Introduction

When a customer walks into a bank for the first time, he/she brings in a lot of potential; the potential of becoming a loyal customer, to make good investment, to have a short time relationship or even the potential of fraud. Now, the banks have to handle millions of such potential every day. They have to retain long standing customers, bring in new, apprehend and prevent fraud. For all this, they need data, lots of it. There’s no scarcity of data in the banking sector. In fact they are the industry which suffers most from the 3 Vs of big data, volume, velocity and of course the variety. The challenge lies in implementing the right analytics on the received data to dig out useful information to meet business challenges. Various departments are working in silos, gathering data throughout the day, how can this diverse data be homogenized and used for taking important business decisions? This is where the banks need to bank on their biggest asset: Big Data and exploit it by applying the right analytics.

Big Data Analytics in banking

According to Microsoft and Celent, “How Big is Big Data: Big Data Usage and Attitudes among North American Financial Services Firms”, 90% of the banks thought that successful big data initiatives will define the winners in the future. In this scenario one can assume that the banks are making most of the big data scenario to deliver the best to their customers. But instead, according to a survey by Capgemini, only 37% of the customers think that their banks understand their needs. Why so? Because, of the lack of application of right analytical tools in the banking sector.

Only 37% of the customers think that their banks understand their needs

(Source: Capgemini)

Banking Industry has been embracing the digitization trend for quite some time now. With bi-modal architecture like legacy modules working with mobile apps, banks are making the most of digitization. But the industry is yet to explore the full potential of big data analytics. A handful of banks like Bank of America, Deutsche bank and Citibank have delved into big data for fraud detection and customized service offerings. The rest are yet to catch onto the trend.

Benefits of Stream Processing Platform

The right stream processing platform would allow for a harmonious blending of data integration together with stream processing technologies for better interoperability. The high-quality data output provides for an efficient data flow thus enabling real-time analytics for predictive and prescriptive capabilities lending businesses agility and flexibility.

Banks are heavily dependent on real time streaming data on a daily basis. They need to keep track of transactions made by a person with date time and geo location, so that they can easily detect a fraud if the location and transaction place do not match. Banks need real time location information in case the customer searches for a branch or ATM nearby. Real time streaming data also helps them materialize personal offers when a customer is in or around a specific store or venue.
Introducing PropelStream

PropelStream is a real-time streaming analytics solution built to create and capture value from disparate sources of data. PropelStream collects real-time data from all available sources like router switches, banks, internet apps, and a variety of social channels like Facebook and Twitter. Predictive messages are then sent to receivers via channels like mobile, file systems, and fraud detection pages.

PropelStream solving Challenges in banking sector:

1. Homogenizing high volume, velocity and variety of data from departments working in silos
2. Data security
3. Customer data analytics
4. Fraud detection
5. Risk management
6. Personalized offers
7. Customer sentiment analysis
8. Customer experience analysis
9. Keeping track of regulatory compliances

Individualization of services for customers

As a customer-facing industry, banking needs to have a more customer-centric approach than any other sector. There is ample scope for personalization as there is so much personal information easily available in the banking sector. Banks have information about the customers' families, their spending habits, new personal developments, work, and investments.

Big Data Analytics also helps in building better customer touch points.
Is your customer newly married? Offer them a home loan. Do they have children opting for higher studies? Make an offer of education loan on customized interests depending on the customer’s income. After successful completion of a loan payment offer them another relevant one. Offer holiday trips on birthdays and anniversaries or special vouchers on using credit cards when they are near a store. Keep a tab on all communication with each customer for sentiment analytics, are they happy with your services? Have they complained often lately? Big Data Analytics also helps in building better customer touch points like websites based on web browsing patterns. Find out what your customers are looking for more often on your website. With personal data comes responsibility, banks need to handle these data very carefully or else it could lead to devastating results for the individual and the bank itself. For this banks need a secure database for storing operational data which tools like PropelStream can provide.

It’s more than personalization, opt for individualization. Like offering customized cards with background images of customers’ choice. (ICICI Bank)

Reduction of risk and frauds

The moment a fraud occurs, a bank loses its credibility. If the numbers keep increasing it drives the brand towards a larger failure. Big Data Analytics can help detect fraud from finding patterns out of seemingly unrelated data from your customer database. Maybe a purchase pattern, geo location of card holder, amount spend, misuse of card etc. With the help of right analytical tools big data can also help banks reduce market risks significantly. Before approving a loan you can check for a person’s previous lending history, income stability, liabilities and judge him/her as a candidate. Unutilized data is as good as handing your competitors the entire market. With predictive models like PropelStream you can strategize better for reducing investment, operational and legal risks. It allows you to keep a tab on your assets which prevents risks of liquidity.

Rabobank applied big data analytics to analyze criminal activities at ATMs. Results showed that the proximity of highways, the season and weather condition increased the risk of criminal activities. They also implemented big data analytics to find the best places for ATMs.

Efficient Data Handling

The great challenges of handling Omni-channel data in high velocity can only be met with appropriate analytical tools. It has already been discussed how banks have to handle tons of vulnerable data in high velocity and variety every day. To improve the data management Big Data Analytics implementation has become mandatory. It not only stores data in a secure platform but also cleanses it to find highly relevant data to make accurate predictions about customers, risks and market trends. Big Data Analytics also help banks to keep up regulatory compliances like the recent Dodd-Frank regulations in the USA. Tools like PropelStream analyze trading data and industry news to keep up to date with new regulatory compliances, market trends and new threats. It also analyses advertisement data to find out the impact and visibility of brand and product.

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Social monitoring

If you want to know people’s opinions then there is no other place like social platforms. It helps you figure which banking trend has recently made them happy, which bank is your current competition, and people who are dissatisfied with other banks and may become potential customers. Social network analytics can also give personal information about customers like the ones planning to buy a house or going abroad for education.

Then you can use your Facebook, Twitter and other social channels to get their attention about relevant offers, schemes and services. Like if a person is talking about buying a car on these forums you can present him with a car loan. You can also develop brand identity and judge product visibility on social networks with the help of PropelStream.

Benefits of PropelStream

Thanks to the built-in Machine Learning the PropelStream framework can be used for solving specific business use cases. It is simple enough for regular business users to use. No need for data scientists to run this framework, or the application that it produces.

PropelStream is built using industry components. It is compatible with related security components, which can be implemented based on the use case.

1. Processing data from all sources and transforming them into homogenized data.
2. Data module can be refreshed according to the customers’ data flow and preferences, at a weekly, monthly or daily basis.
3. Ensure rapid decision making with predictive messages accessible from any device.
4. Predictive results can form new workflow, help strategize better for risk reduction and fraud detection.
5. Helps in building consolidated information management system.
6. Modules can be easily integrated with existing IT infrastructure.
7. One model can be used for various different scenarios. It can be used for customer sentiment analytics as well as customer experience analytics.
8. Lightweight, open source, made to fit customers’ requirements, not OS dependent.
9. Getting an edge over competition with market predictions.
10. Available both on premise and on-cloud.
11. Data security.
12. Data storage.
13. No dark data.
14. Helps in building customized, personalized services for customers.

Why Choose PropelStream

To exploit the true potential of every investment, banks need to first exploit their Big Data Bank. PropelStream gives you the advantage of data ingestion and predictive analytics that gives you an edge over competition. It gives you one secure operational database giving your customers a safe banking experience. Helps in building personalized services and accurately predicts the outcomes. PropelStream gives you the agility to take real time decisions and increases functional efficiency.
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