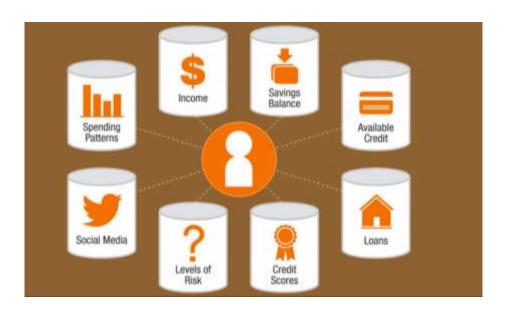# Certification Program in Business Analytics & Optimisation From IIT DELHI

Story Based Case Study – 3

TOPIC: Big Data Analytics in Financial Sector (Capital One, Bank of America)

From:

Shivesh Kumar Sareen

(shivesh72@gmail.com)

BACKGROUND

In the current technological scenario, with the augment of Big Data, Mobile internet and cloud computing, financial sector is subjected to new opportunities and facing critical challenges. Innovation in data handling by the financial sector will play a critical role in their future growth. Big data and data analytics have become everyday activities of the firm, still less than 0.5% data is being analyzed. This restricts the organization in scaling their business to the actual potential.

A large amount of customer information can help the financial sector to learn about customer behavior, improve service quality and enhance business profit. All this in turn helps the decision makers in formulating business growth strategies like customer retention, targeted marketing, fraud reduction, and more. The winning mantra for the companies is execution in five key areas namely, strategy, skills, process, systems, and data.

Data analytics boost returns in many areas, including the following:

- Customer value management
- Customer retention
- Customer scoring and segmentation
- Lead generation
- Fraud detection
- Targeted marketing
- Regulatory compliance

OBJECTIVE OF CASE STUDY

With the help of this case study, one can understand correlation between big data, challenges security as data driven issues faced by the financial sector. It will further reflect on the enormous unstructured data captured and stored at unprecedented levels of volume, velocity and variety. This case study targets different dimensions of the big data in financial sector.

ANALYSIS

Historically, financial firms have been slow to respond to changes in customer value. This may be due to the fact that in order to continually track these changes, companies need to combine internal and external data with automated reporting. However, with an increase in internet coverage and all the countries shifting to the digital economy based model, digitization of financial sector is of utmost importance. Digital financial sector helps to convert the sector into an organized one and data generated can be collected and analyzed in a more structured manner. This will in turn

power the growth trajectory. Big Data involve banking in different ways through volume, variety and velocity of data generated.

Most of the executives working in financial institutions believed that big data would provide a competitive edge to the large players. This is due to the fact that they possess more data to leverage and more resources to put toward projects. Many companies that don't have internal data analytics capabilities simply connect with firms that provide data expertise.

How CAPITAL ONE used BIG DATA in CUSTOMER VALUE MANAGMENT

Since the 1990s, Capital One has been mining customer data and credit ratings. All of this data enables the institution to tracks tens of millions of customers. Capital One's business is less diversified than other banks, predominantly operating in the volatile credit card issuing space. With an increase in completion in the market, institutions who did not take advantage of the big data have gone out of business. On the other hand, Capital One has been able to gain customer confidence by optimising the offers for credit cards and other products. Capital One sends over 3000 different credit card offer variations to over 100,000 customer segments. Capital One is able to test a large number of offer variations quickly and incorporate them into its relational management system. It conducts more than 65,000 "test and learn" campaigns per year to narrow in on which offers are most effective for which types of customer. By using customer data in this way, Capital One can then set customer acquisition targets for employees at all levels, and provide customer data access for front-line personnel.

How BANK OF AMERICA used BIG DATA in CUSTOMER SCORING AND SEGMENTATION

Bank of America for business growth used Big Data Analytics. They worked on the strategy of specialised segmentation to generate growth in new areas of the market. With this strategy, they targeted 60 million customers and analysed their habits in terms of investable assets, differences across those with different types of assets, and the value of those different asset types. Then they identified a new target audience and labelled them as "mass affluent". This group consists of customers having $25,000 and $1M in investable assets, comprising over 11% of US households. They further observed that these group of people are more active with their banking activities, utilizes more banking services and more apt to switch banks. To monetise this opportunity, they created a customised program called "Preferred rewards". This program tiers customers based on total assets with the bank, and provides benefits across a variety of banking services including savings, checking, investment accounts, loans, credit cards, and more. This initiative based on data analytics became so popular that it now includes over 8 million clients with more than $600 billion in assets.

CONCLUSION

Thus, Big Data Analysis provides a wide scope for the banking and financial sector to grow manifold.

1. Big data can have long lasting impact on the banking operation in client background analysis, customers credit scoring, fraud detection etc.
2. Big data also brings with it the challenges related to security incidents, as technology needs to be handled with trained professionals.
3. Big data also plays an important role in improving operational effectiveness. Cross-organizational data supports new regulatory and compliance requirements and early fraud detection.
4. Firms can capture competitive advantage using big data. Much of the industry is behind at present, but growing awareness of the value of big data and new regulations will eventually level the playing field. Therefore, it is important to act now to be the first mover.